Appendix 11

Rating Curves

Lamprey River Current Conditions Resident Species Spawning Suitability

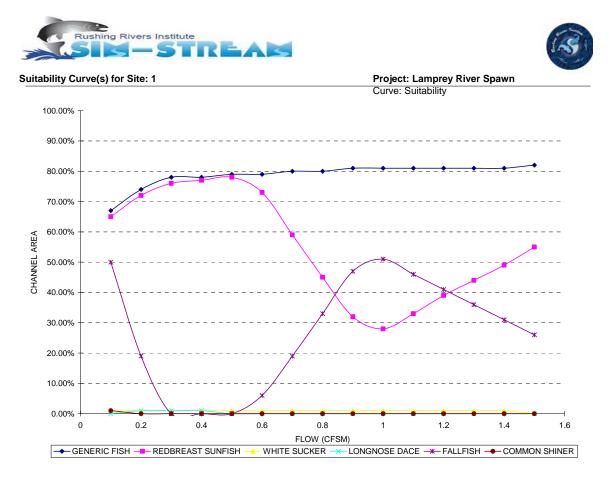


Figure 1: Suitability rating curves for fish in Reach 1 during the Resident Species Spawning bioperiod.





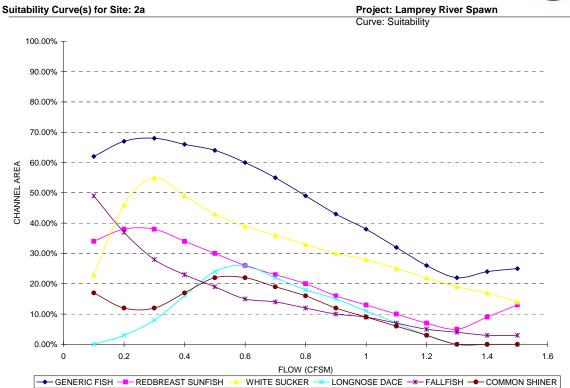


Figure 2: Suitability rating curves for fish in Reach 2a during the Resident Species Spawning bioperiod.





LONGNOSE DACE -*- FALLFISH --- COMMON SHINER

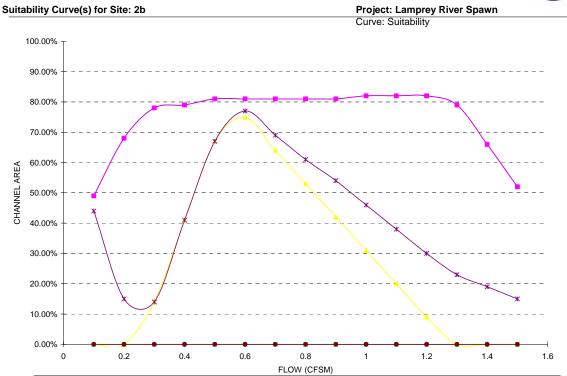


Figure 3: Suitability rating curves for fish in Reach 2b during the Resident Species Spawning bioperiod.





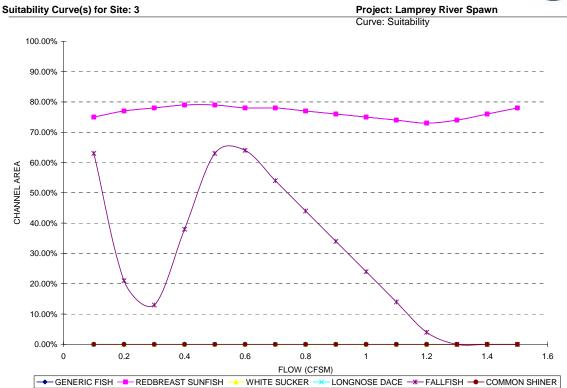


Figure 4: Suitability rating curves for fish in Reach 3 during the Resident Species Spawning bioperiod.





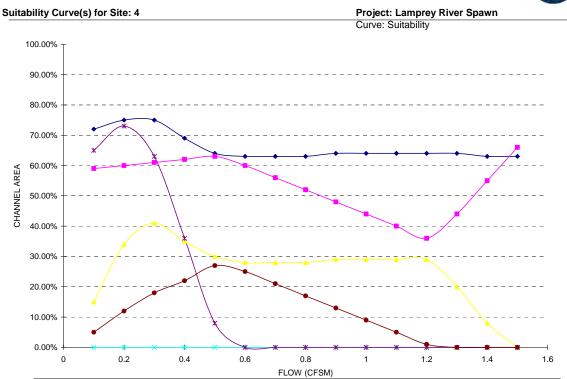


Figure 5: Suitability rating curves for fish in Reach 4 during the Resident Species Spawning bioperiod.

WHITE SUCKER





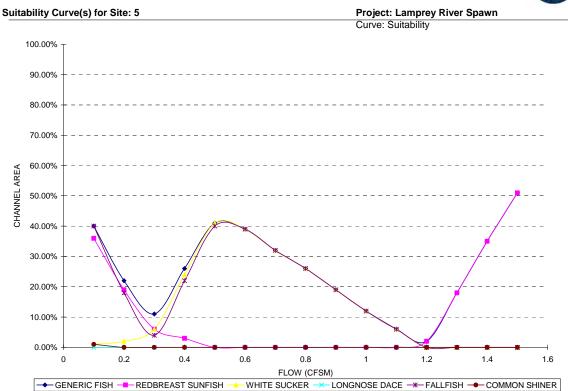


Figure 6: Suitability rating curves for fish in Reach 5 during the Resident Species Spawning bioperiod.

WHITE SUCKER





LONGNOSE DACE -*- FALLFISH --- COMMON SHINER

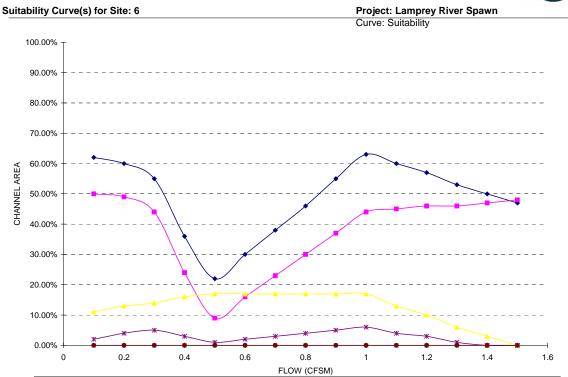


Figure 7: Suitability rating curves for fish in Reach 6 during the Resident Species Spawning bioperiod.





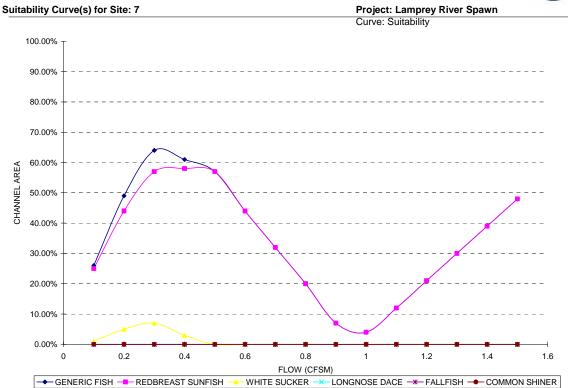


Figure 8: Suitability rating curves for fish in Reach 7 during the Resident Species Spawning bioperiod.





LONGNOSE DACE -*- FALLFISH --- COMMON SHINER

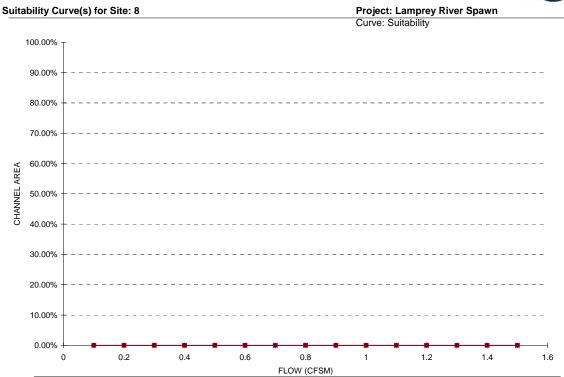


Figure 9: Suitability rating curves for fish in Reach 8 during the Resident Species Spawning bioperiod.

Current Conditions Resident Species Spawning Effective Habitat

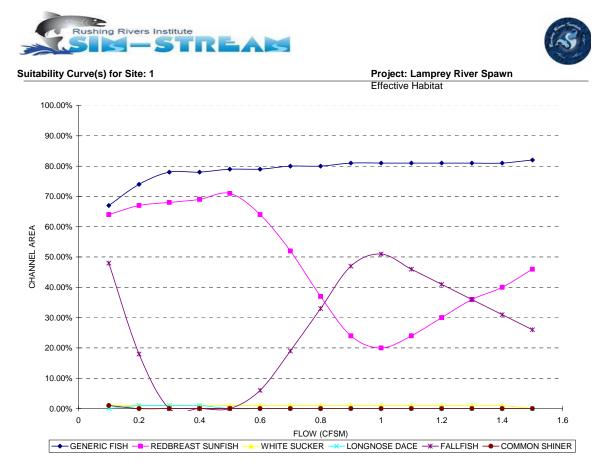


Figure 10: Effective habitat rating curves for fish in Reach 1 during the Resident Species Spawning bioperiod.





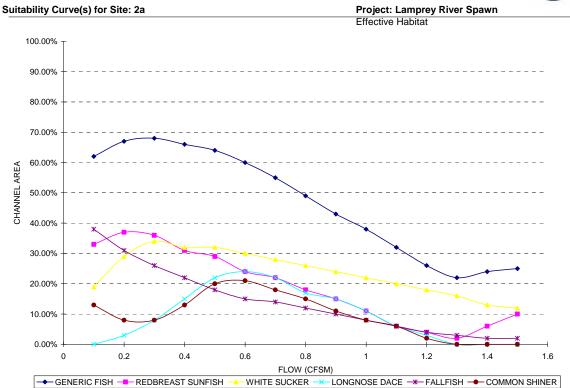


Figure 11: Effective habitat rating curves for fish in Reach 2a during the Resident Species Spawning bioperiod.





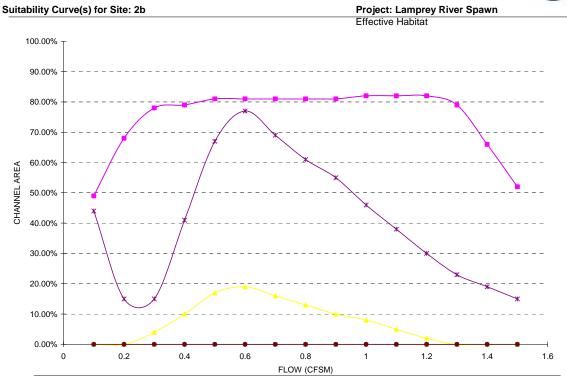


Figure 12: Effective habitat rating curves for fish in Reach 2b during the Resident Species Spawning bioperiod.

WHITE SUCKER





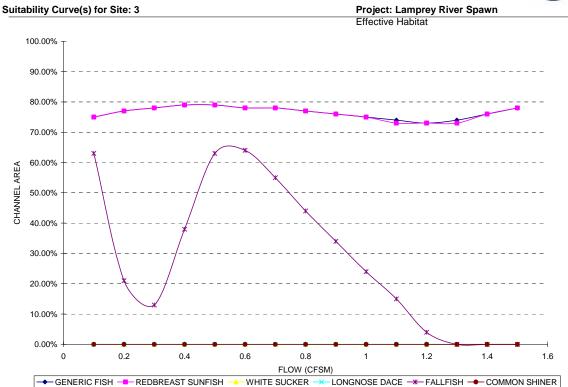


Figure 13: Effective habitat rating curves for fish in Reach 3 during the Resident Species Spawning bioperiod.





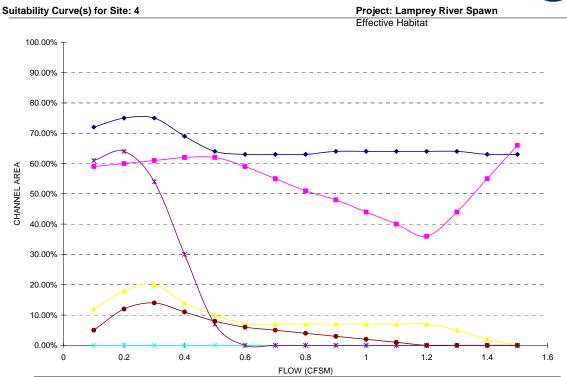


Figure 14: Effective habitat rating curves for fish in Reach 4 during the Resident Species Spawning bioperiod.

WHITE SUCKER





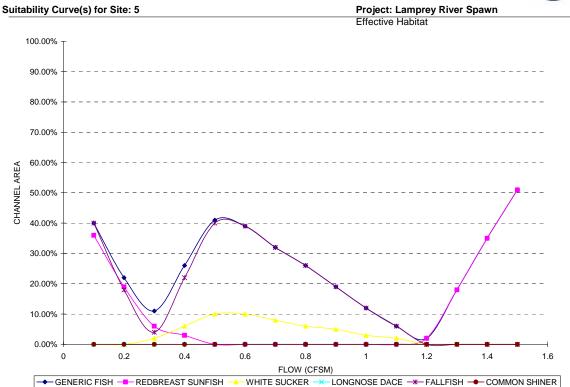


Figure 15: Effective habitat rating curves for fish in Reach 5 during the Resident Species Spawning bioperiod.





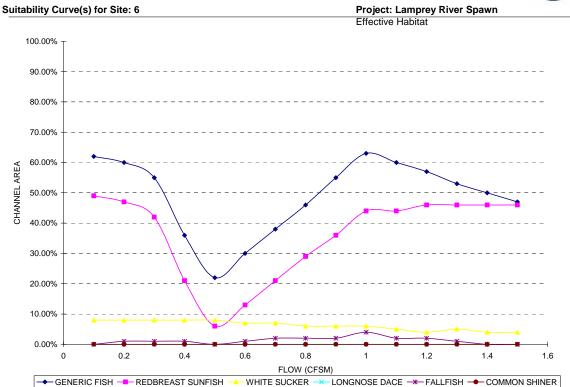


Figure 16: Effective habitat rating curves for fish in Reach 6 during the Resident Species Spawning bioperiod.





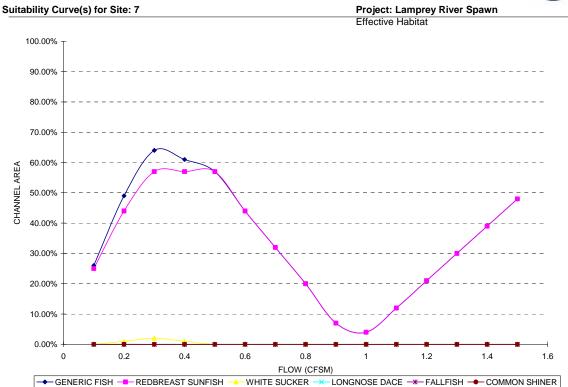


Figure 17: Effective habitat rating curves for fish in Reach 7 during the Resident Species Spawning bioperiod.





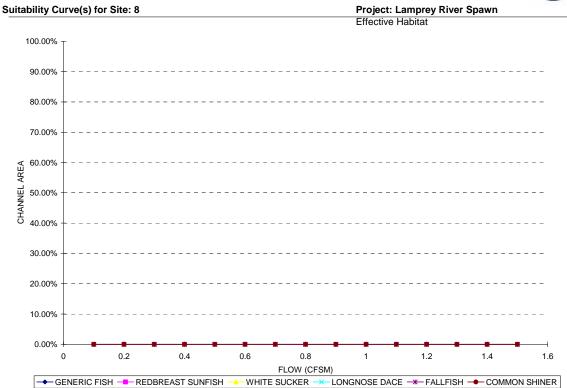


Figure 18: Effective habitat rating curves for fish in Reach 8 during the Resident Species Spawning bioperiod.

3. Current Conditions Resident Species Spawning Optimal

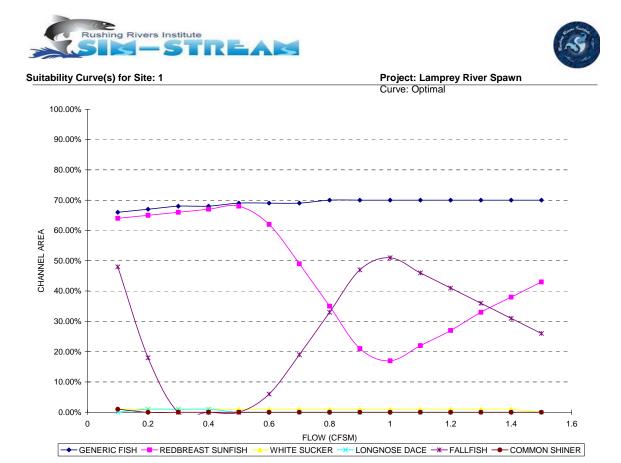


Figure 19: Optimal rating curves for fish in Reach 1 during the Resident Species Spawning bioperiod.





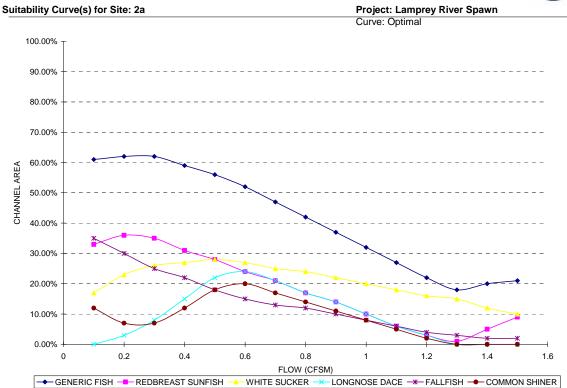


Figure 20: Optimal rating curves for fish in Reach 2a during the Resident Species Spawning bioperiod





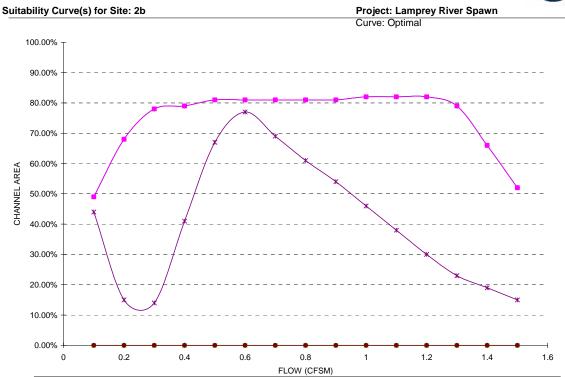


Figure 21: Optimal rating curves for fish in Reach 3b during the Resident Species Spawning bioperiod.

WHITE SUCKER





LONGNOSE DACE -*- FALLFISH --- COMMON SHINER

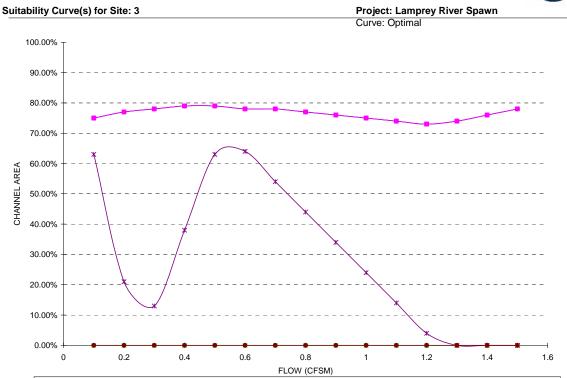


Figure 22: Optimal rating curves for fish in Reach 3 during the Resident Species Spawning bioperiod.





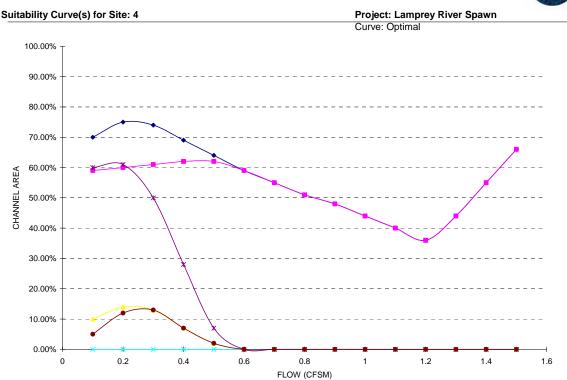


Figure 23: Optimal rating curves for fish in Reach 4 during the Resident Species Spawning bioperiod.

WHITE SUCKER





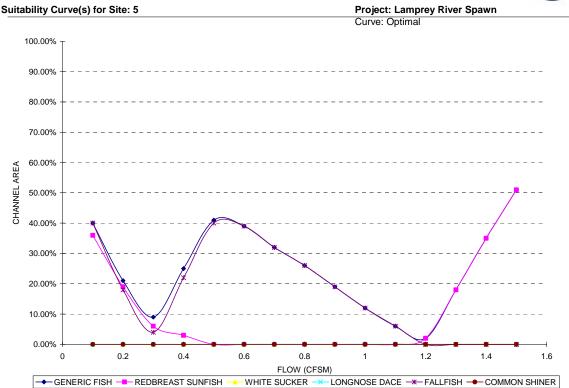


Figure 24: Optimal rating curves for fish in Reach 5 during the Resident Species Spawning bioperiod.





LONGNOSE DACE -*- FALLFISH --- COMMON SHINER

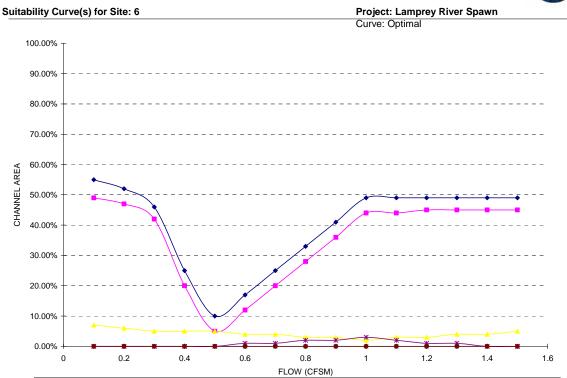


Figure 25: Optimal rating curves for fish in Reach 6 during the Resident Species Spawning bioperiod.





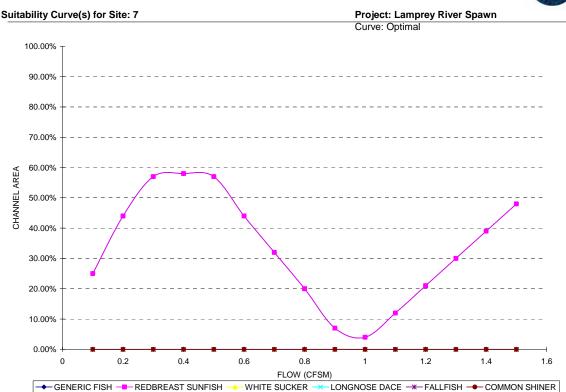


Figure 26: Optimal rating curves for fish in Reach 7 during the Resident Species Spawning bioperiod.





LONGNOSE DACE -*- FALLFISH --- COMMON SHINER

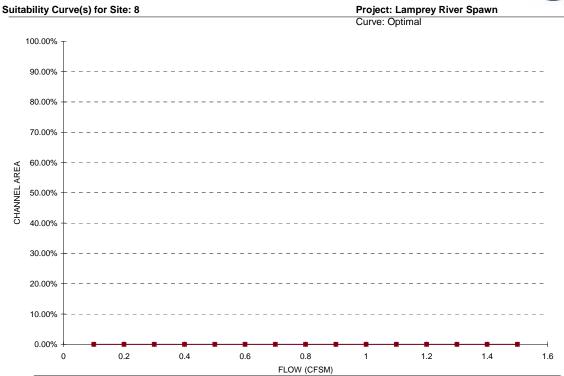


Figure 27: Optimal rating curves for fish in Reach 8 during the Resident Species Spawning bioperiod.

4. Current Conditions Anadromous Species Spawning Suitability

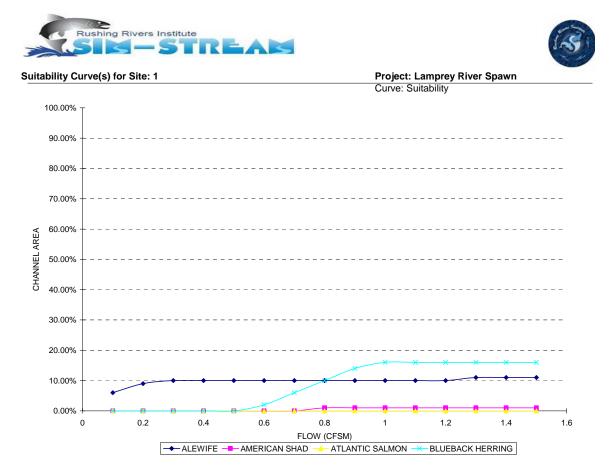


Figure 28: Suitable habitat rating curves for fish in Reach 1 during the Anadromous Species Spawning bioperiod.





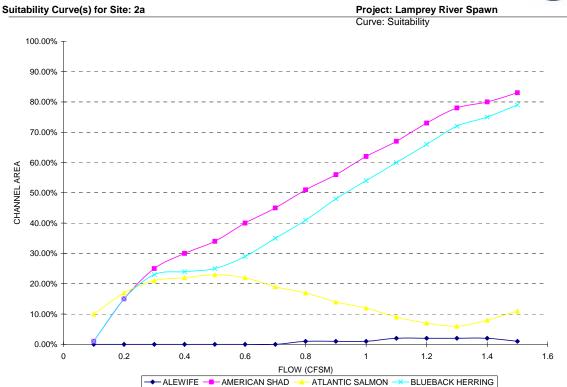


Figure 29: Suitable habitat rating curves for fish in Reach 2a during the Anadromous Species Spawning bioperiod.





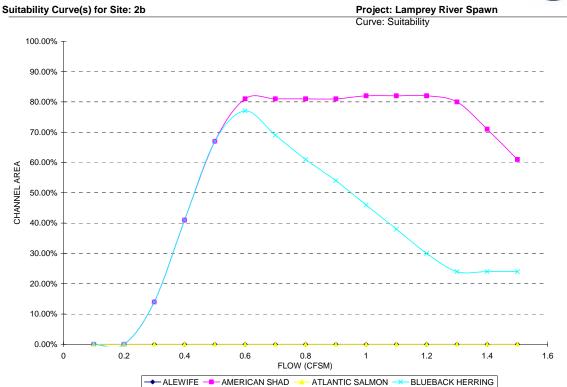


Figure 30: Suitable habitat rating curves for fish in Reach 2b during the Anadromous Species Spawning bioperiod.





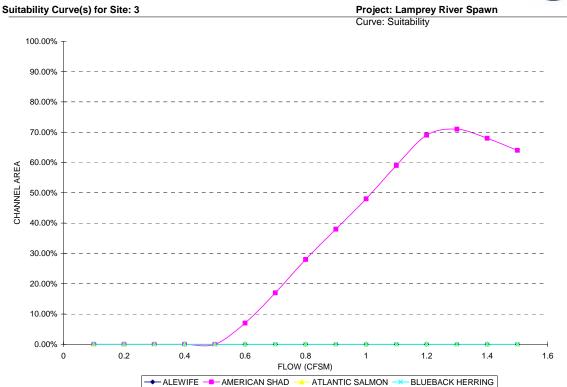


Figure 33: Suitable habitat rating curves for fish in Reach 3 during the Anadromous Species Spawning bioperiod.





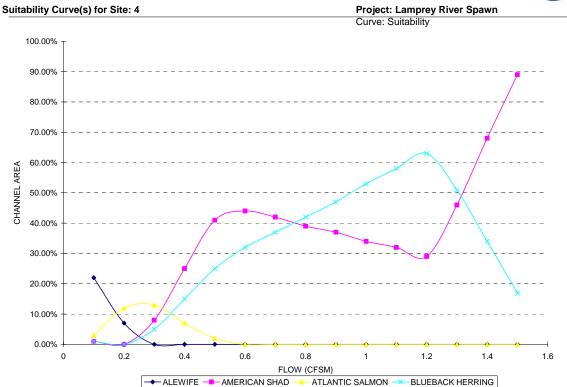


Figure 34: Suitable habitat rating curves for fish in Reach 4 during the Anadromous Species Spawning bioperiod.





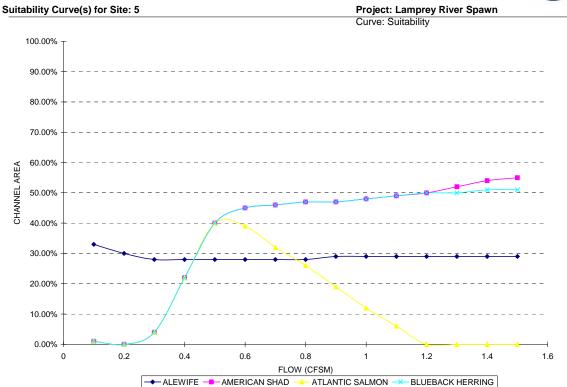


Figure 35: Suitable habitat rating curves for fish in Reach 5 during the Anadromous Species Spawning bioperiod.





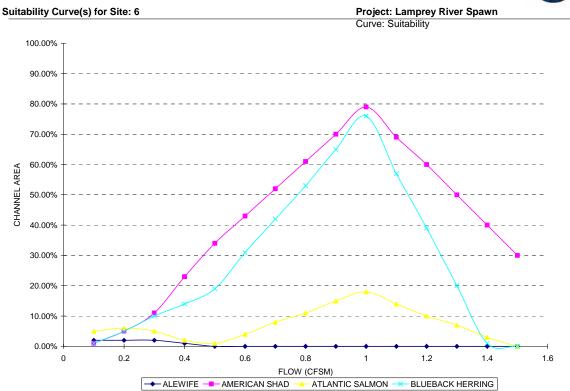


Figure 36: Suitable habitat rating curves for fish in Reach 6 during the Anadromous Species Spawning bioperiod.





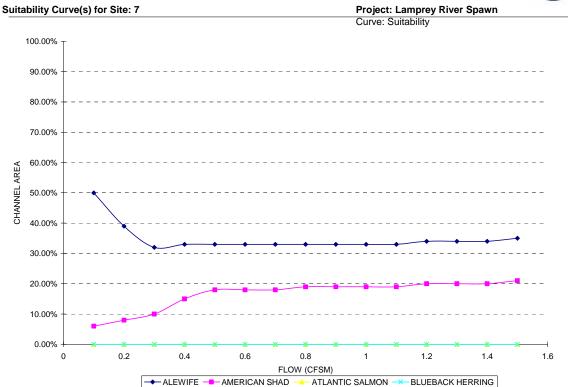


Figure 37: Suitable habitat rating curves for fish in Reach 7 during the Anadromous Species Spawning bioperiod.





Suitability Curve(s) for Site: 8

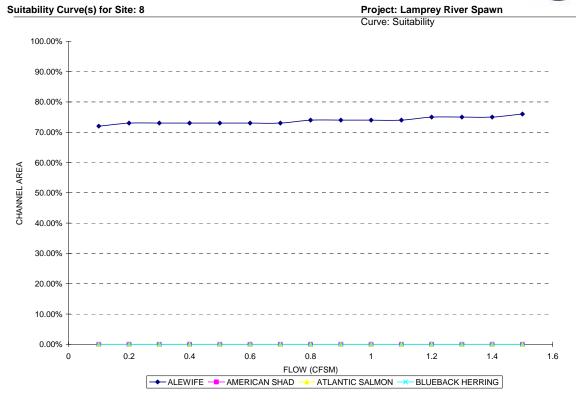


Figure 38: Suitable habitat rating curves for fish in Reach 8 during the Anadromous Species Spawning bioperiod.

5. **Current Conditions Anadromous Species Spawning Effective Habitat**





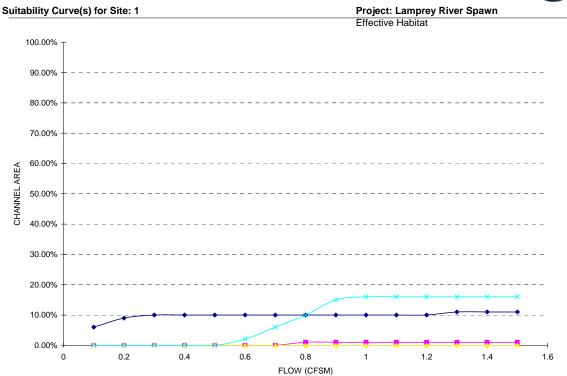


Figure 39: Effective habitat rating curves for fish in Reach 1 during the Anadromous Species Spawning bioperiod.

BLUEBACK HERRING

AMERICAN SHAD

◆ ALEWIFE





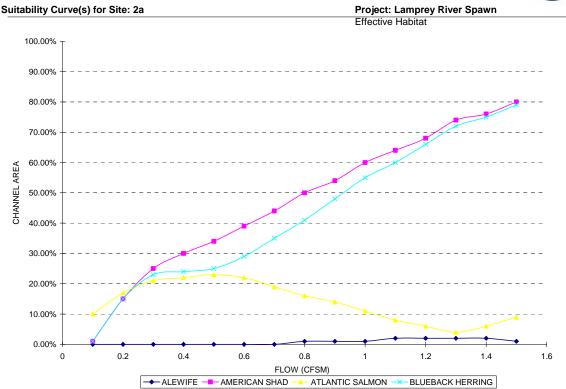


Figure 40: Effective habitat rating curves for fish in Reach 2a during the Anadromous Species Spawning bioperiod.





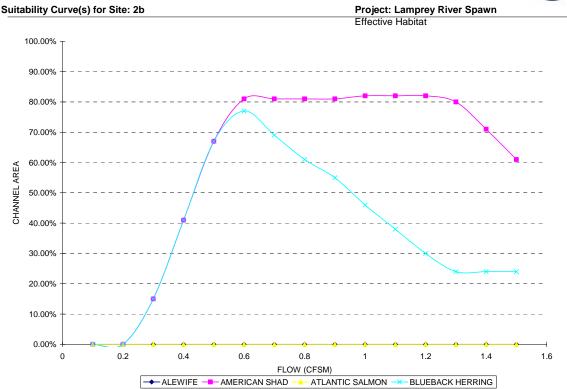


Figure 41: Effective habitat rating curves for fish in Reach 2b during the Anadromous Species Spawning bioperiod.





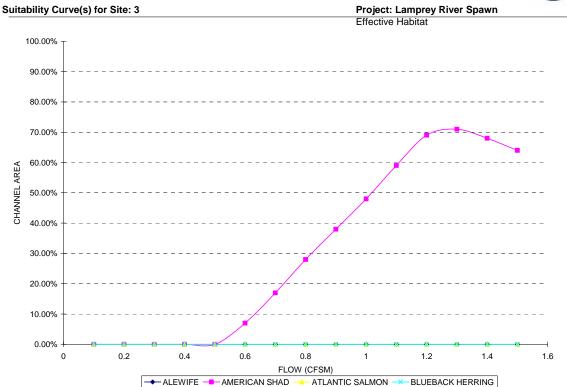


Figure 42: Effective habitat rating curves for fish in Reach 3 during the Anadromous Species Spawning bioperiod.





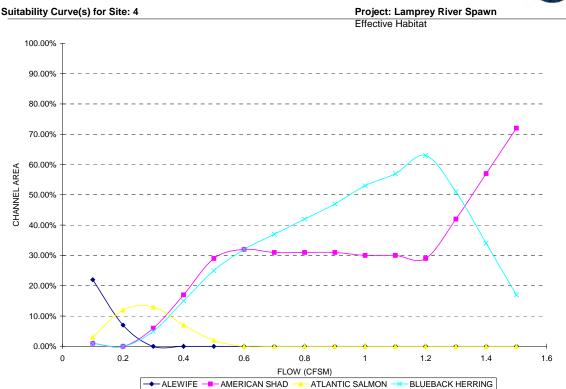


Figure 43: Effective habitat rating curves for fish in Reach 4 during the Anadromous Species Spawning bioperiod.





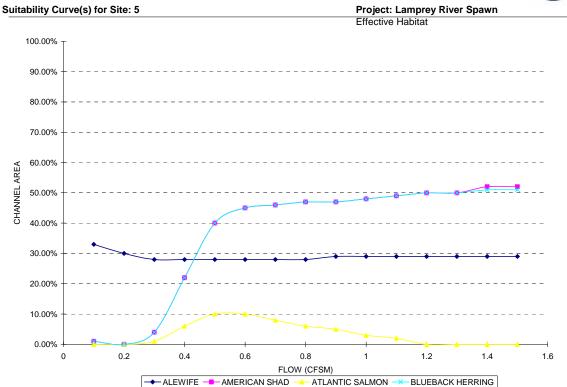


Figure 44: Effective habitat rating curves for fish in Reach 5 during the Anadromous Species Spawning bioperiod.





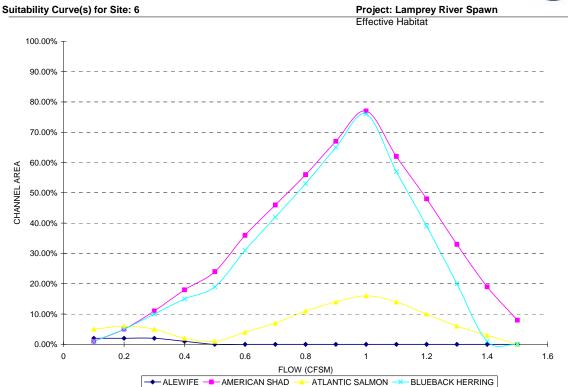


Figure 45: Effective habitat rating curves for fish in Reach 6 during the Anadromous Species Spawning bioperiod.





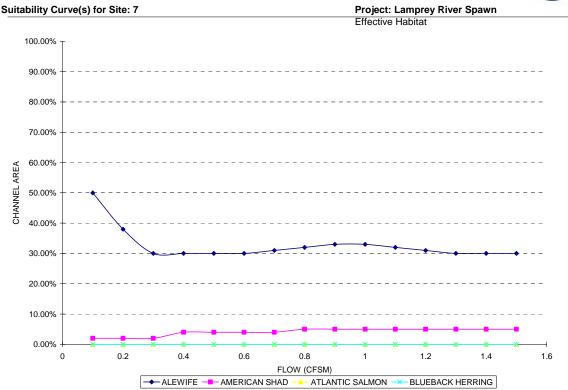


Figure 46: Effective habitat rating curves for fish in Reach 7 during the Anadromous Species Spawning bioperiod.





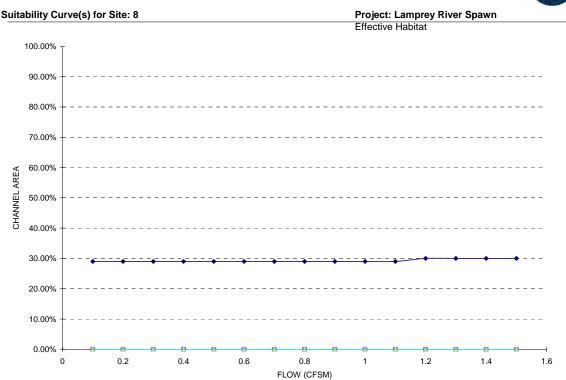


Figure 47: Effective habitat rating curves for fish in Reach 8 during the Anadromous Species Spawning bioperiod.

BLUEBACK HERRING

AMERICAN SHAD

◆ ALEWIFE

Current Conditions Anadromous Species Spawning Optimal

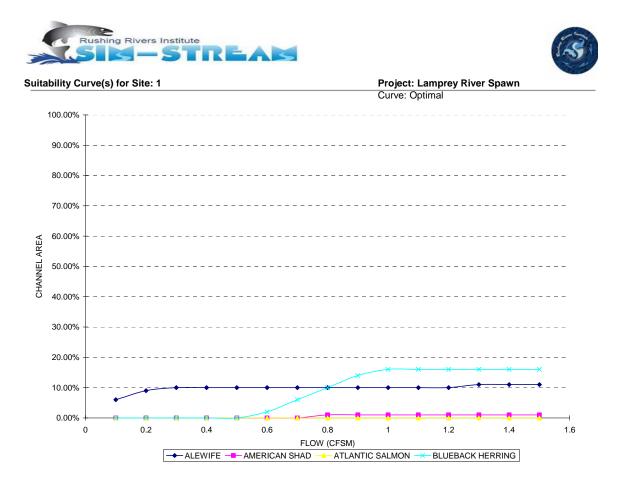


Figure 48: Optimal rating curves for fish in Reach 1 during the Anadromous Species Spawning bioperiod.





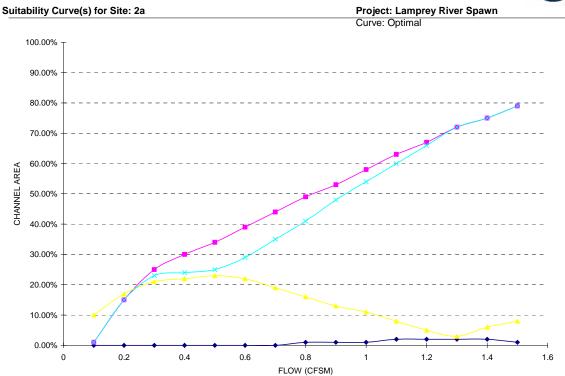


Figure 49: Optimal rating curves for fish in Reach 2a during the Anadromous Species Spawning bioperiod.

BLUEBACK HERRING

→ ALEWIFE — AMERICAN SHAD





BLUEBACK HERRING

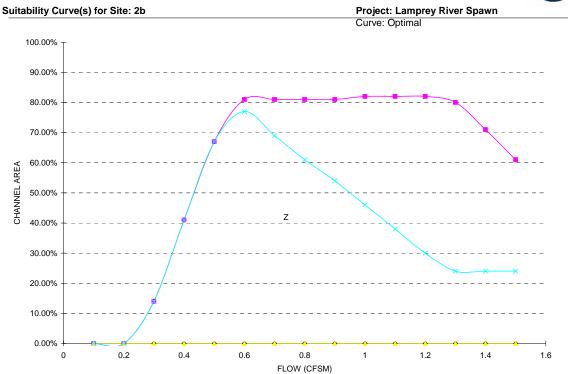


Figure 50: Optimal rating curves for fish in Reach 2b during the Anadromous Species Spawning bioperiod.

ATLANTIC SALMON

→ ALEWIFE - AMERICAN SHAD





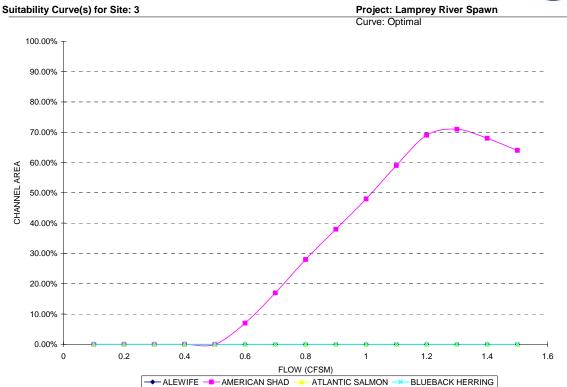


Figure 51: Optimal rating curves for fish in Reach 3 during the Anadromous Species Spawning bioperiod.





BLUEBACK HERRING

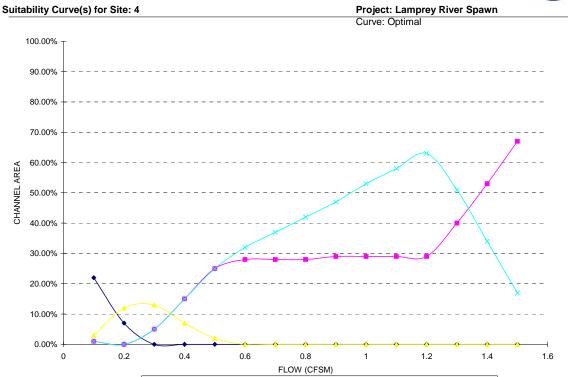


Figure 52: Optimal rating curves for fish in Reach 4 during the Anadromous Species Spawning bioperiod.

ATLANTIC SALMON

→ ALEWIFE — AMERICAN SHAD





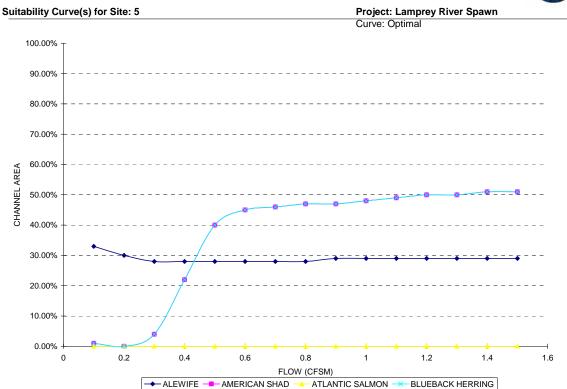


Figure 53: Optimal rating curves for fish in Reach 5 during the Anadromous Species Spawning bioperiod.





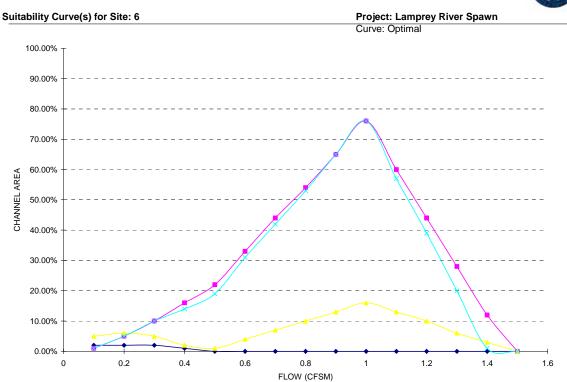


Figure 54: Optimal rating curves for fish in Reach 6 during the Anadromous Species Spawning bioperiod.

BLUEBACK HERRING

AMERICAN SHAD

◆ ALEWIFE





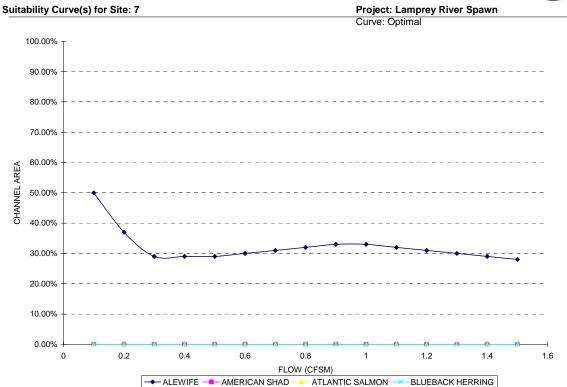


Figure 55: Optimal rating curves for fish in Reach 7 during the Anadromous Species Spawning bioperiod.





Suitability Curve(s) for Site: 8

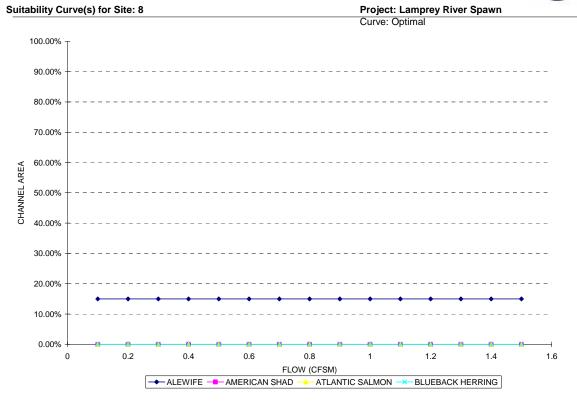


Figure 56: Optimal rating curves for fish in Reach 8 during the Anadromous Species Spawning bioperiod.

7. **Current Conditions** Rearing and Growth bioperiod **Suitability**





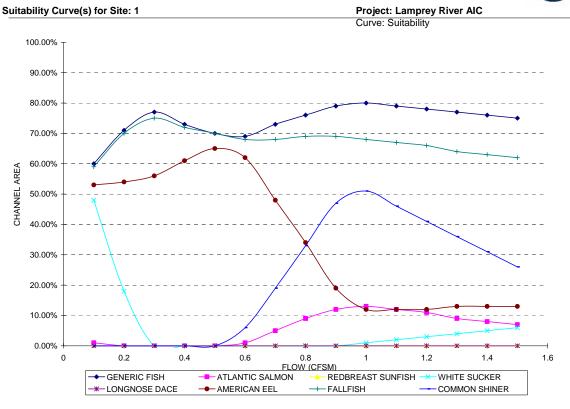


Figure 57: Suitability rating curves in Reach 1 during the Rearing and Growth bioperiod.





Suitability Curve(s) for Site: 2a

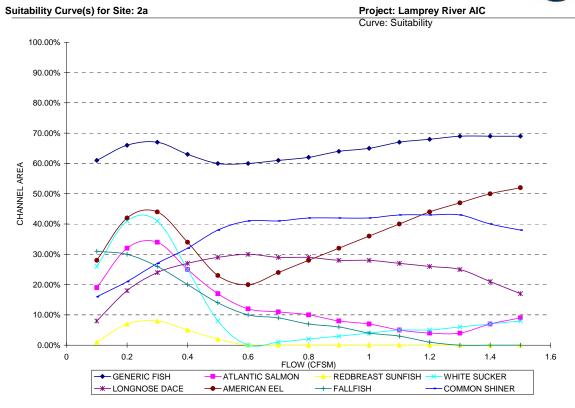


Figure 58: Suitability rating curves in Reach 2a during the Rearing and Growth bioperiod.



40.00%

30.00%

20.00%

10.00%

0.00%

0.2

← GENERIC FISH

*-LONGNOSE DACE

0.4



1.6

Project: Lamprey River AIC
Curve: Suitability Suitability Curve(s) for Site: 2b 100.00% 90.00% 80.00% 70.00% 60.00% CHANNEL AREA 50.00%

Figure 59: Suitability rating curves in Reach 2b during the Rearing and Growth bioperiod.

- AMERICAN EEL

ATLANTIC SALMON

0.6

0.8 FLOW (CFSM)

1.2

WHITE SUCKER

COMMON SHINER

REDBREAST SUNFISH

FALLFISH





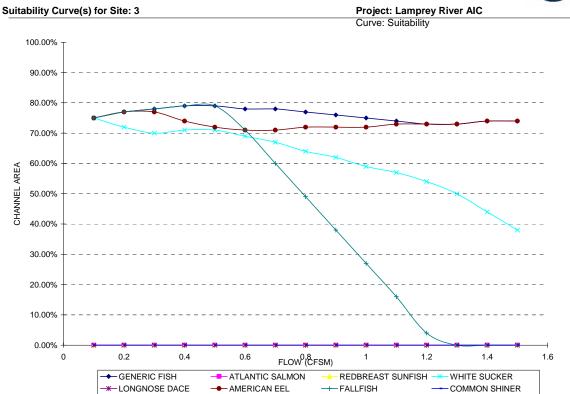


Figure 60: Suitability rating curves in Reach 3 during the Rearing and Growth bioperiod.





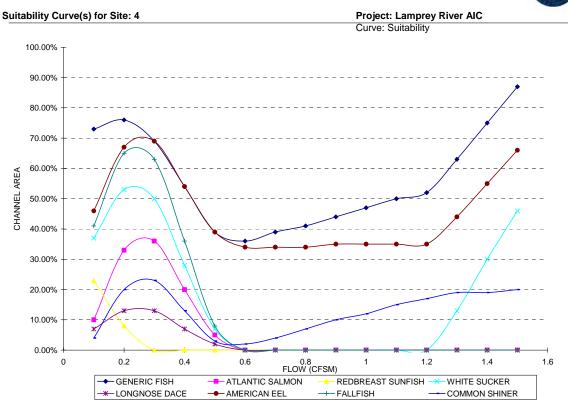


Figure 61: Suitability rating curves in Reach 4 during the Rearing and Growth bioperiod.





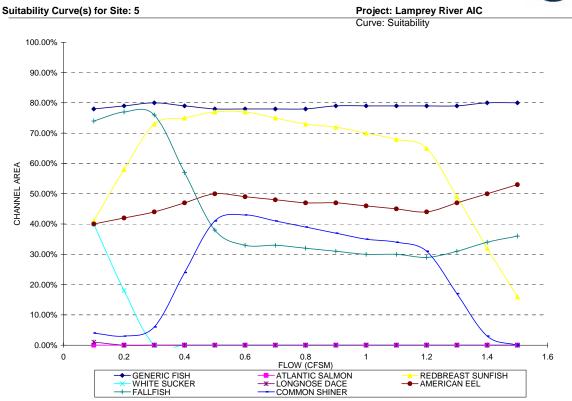


Figure 62: Suitability rating curves in Reach 5 during the Rearing and Growth bioperiod.





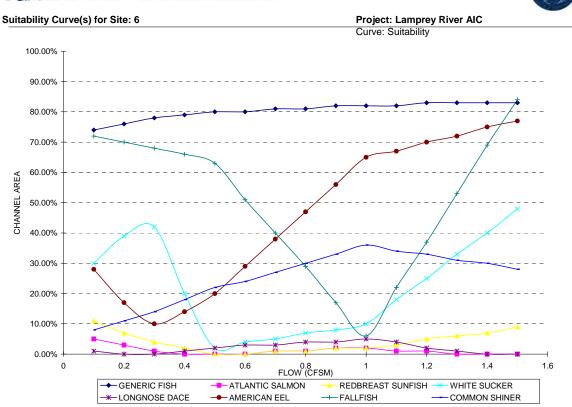


Figure 63: Suitability rating curves in Reach 6 during the Rearing and Growth bioperiod.





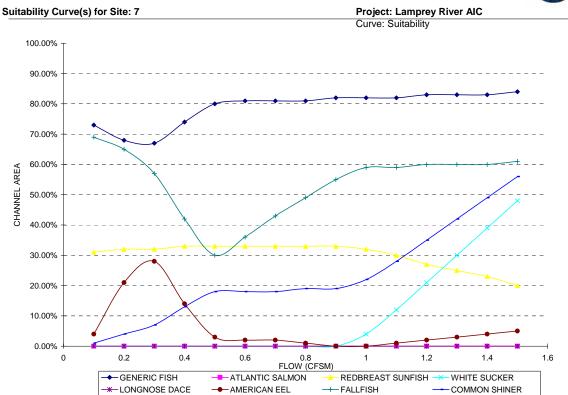


Figure 64: Suitability rating curves in Reach 7 during the Rearing and Growth bioperiod.





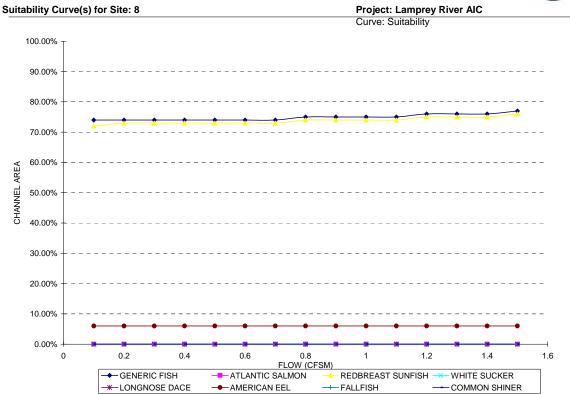


Figure 65: Suitability rating curves in Reach 8 during the Rearing and Growth bioperiod.

8.
Current Conditions
Rearing and Growth bioperiod Effective Habitat

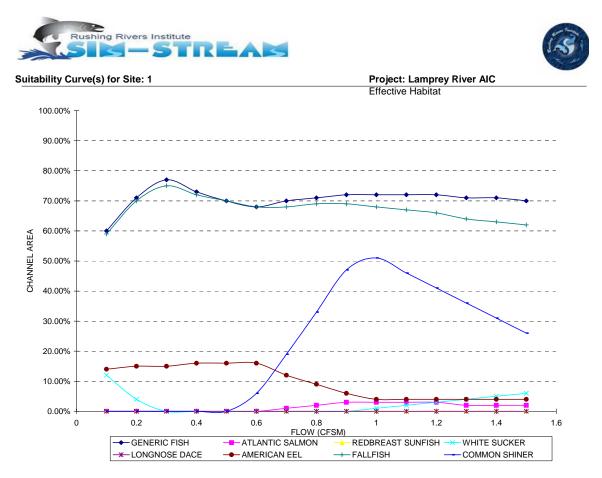


Figure 66: Effective Habitat rating curves in Reach 1 during the Rearing and Growth bioperiod.



-LONGNOSE DACE



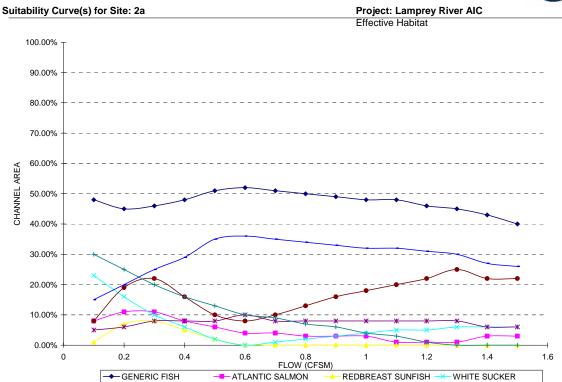


Figure 67: Effective Habitat rating curves in Reach 2a during the Rearing and Growth bioperiod.

FALLFISH

COMMON SHINER

- AMERICAN EEL



GENERIC FISH

-LONGNOSE DACE



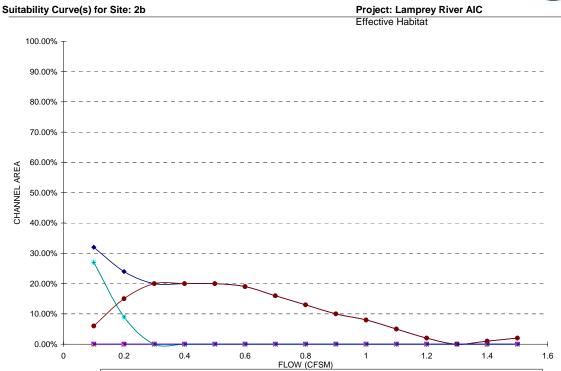


Figure 68: Effective Habitat rating curves in Reach 2b during the Rearing and Growth bioperiod.

REDBREAST SUNFISH

FALLFISH

WHITE SUCKER

COMMON SHINER

- ATLANTIC SALMON

-AMERICAN EEL





Suitability Curve(s) for Site: 3



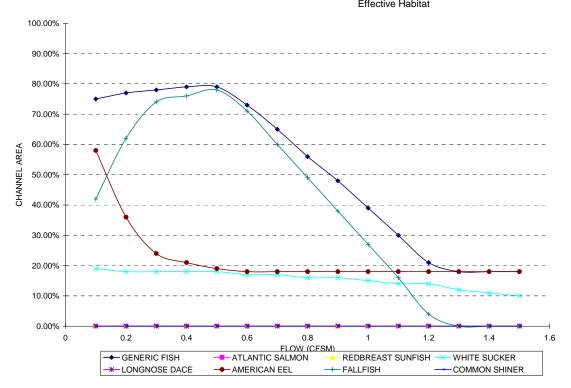


Figure 69: Effective Habitat rating curves in Reach 3 during the Rearing and Growth bioperiod.



40.00%

30.00%

20.00%

10.00%

0.00%

0.2

-GENERIC FISH

*-LONGNOSE DACE

0.4



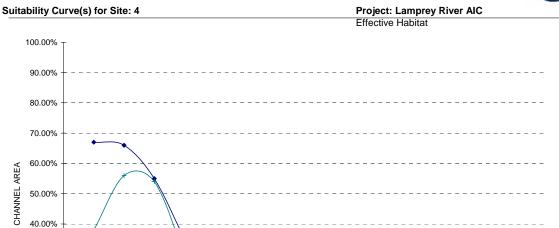


Figure 70: Effective Habitat rating curves in Reach 4 during the Rearing and Growth bioperiod.

ATLANTIC SALMON

- AMERICAN EEL

0.8 FLOW (CFSM)

1.2

REDBREAST SUNFISH

FALLFISH

1.4

COMMON SHINER

WHITE SUCKER

1.6

0.6



*-LONGNOSE DACE



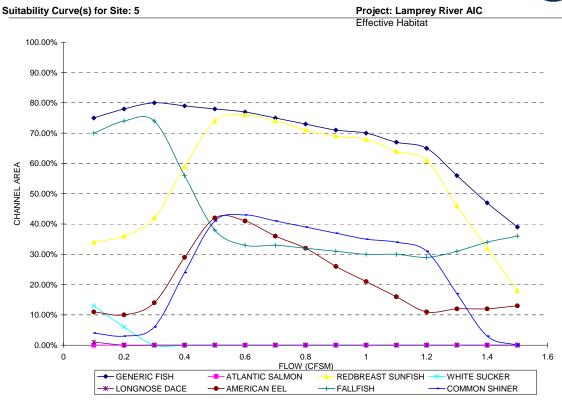


Figure 71: Effective Habitat rating curves in Reach 5 during the Rearing and Growth bioperiod.

FALLFISH

- AMERICAN EEL



*-LONGNOSE DACE



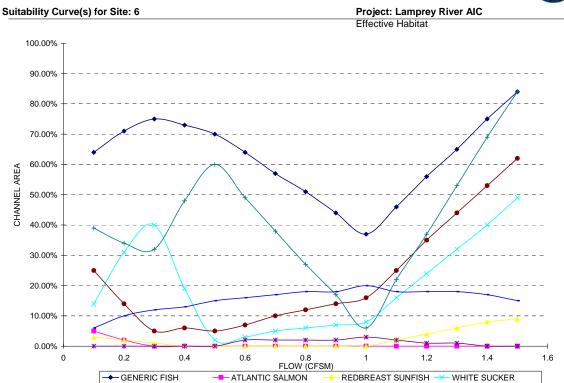


Figure 72: Effective Habitat rating curves in Reach 6 during the Rearing and Growth bioperiod.

FALLFISH

COMMON SHINER

- AMERICAN EEL



20.00%

10.00%

0.00%

0.2

GENERIC FISH

*-LONGNOSE DACE

0.4



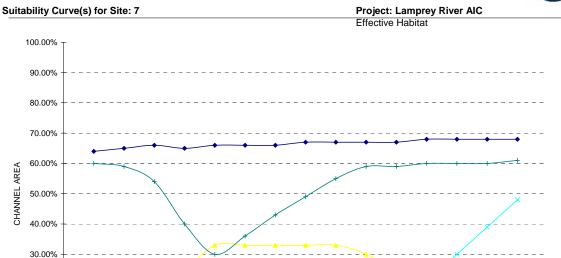


Figure 73: Effective Habitat rating curves in Reach 7 during the Rearing and Growth bioperiod.

- AMERICAN EEL

0.6 0.8 FLOW (CFSM) -ATLANTIC SALMON →

1.2

REDBREAST SUNFISH

FALLFISH

1.4

COMMON SHINER

WHITE SUCKER

1.6





Suitability Curve(s) for Site: 8

Project: Lamprey River AIC
Effective Habitat

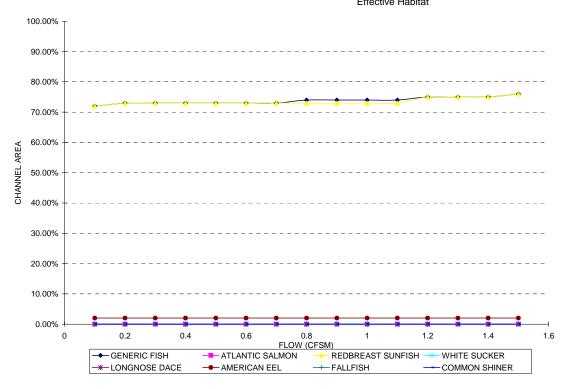


Figure 74: Effective Habitat rating curves in Reach 8 during the Rearing and Growth bioperiod.

9. Current Conditions **Rearing and Growth bioperiod Optimal**

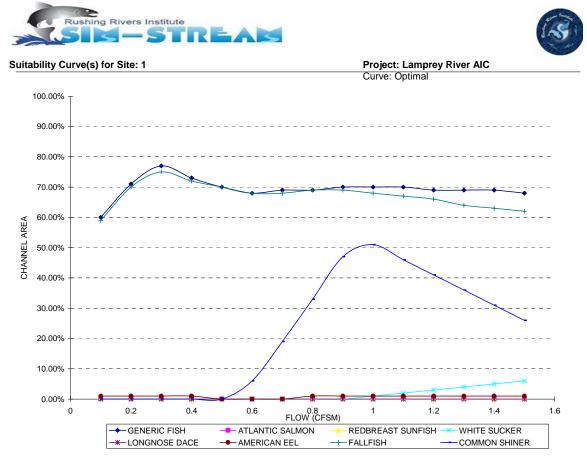


Figure 75: Effective Habitat rating curves in Reach 1 during the Rearing and Growth bioperiod.





Suitability Curve(s) for Site: 2a Project: Lamprey River AIC Curve: Optimal

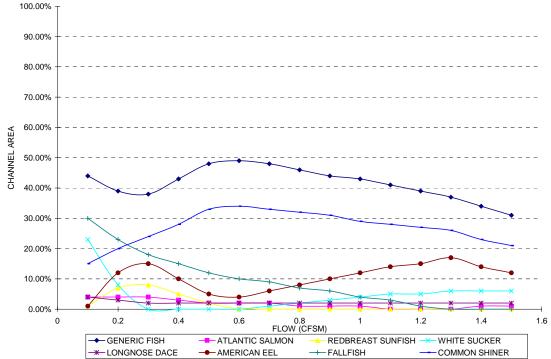


Figure 76: Effective Habitat rating curves in Reach 2a during the Rearing and Growth bioperiod.



GENERIC FISH

*-LONGNOSE DACE



Project: Lamprey River AIC Curve: Optimal Suitability Curve(s) for Site: 2b 100.00% 90.00% 80.00% 70.00% 60.00% CHANNEL AREA 50.00% 40.00% 30.00% 20.00% 10.00% 0.00% 0.2 0.4 1.2 0.6 0.8 FLOW (CFSM) 1.4 1.6

Figure 77: Effective Habitat rating curves in Reach 2b during the Rearing and Growth bioperiod.

ATLANTIC SALMON

- AMERICAN EEL

REDBREAST SUNFISH

FALLFISH

WHITE SUCKER





Suitability Curve(s) for Site: 3 Project: Lamprey River AIC Curve: Optimal

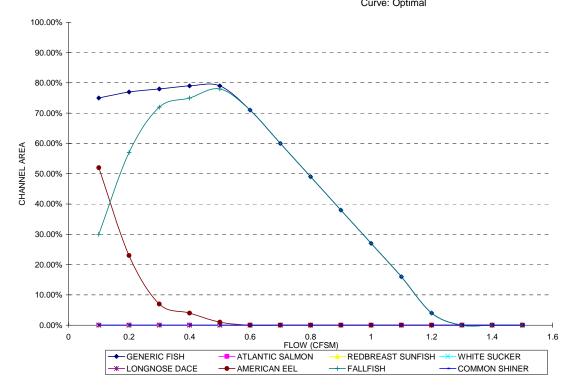


Figure 78: Effective Habitat rating curves in Reach 3 during the Rearing and Growth bioperiod.





Suitability Curve(s) for Site: 4

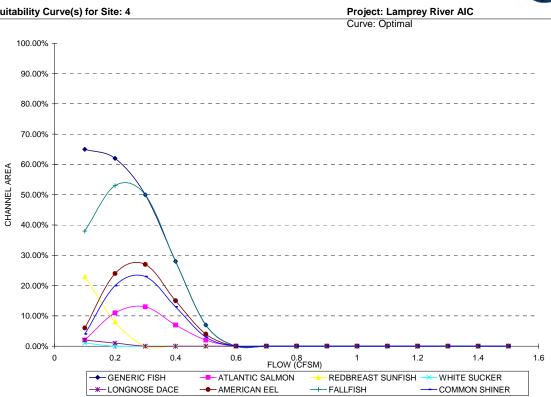


Figure 79: Effective Habitat rating curves in Reach 4 during the Rearing and Growth bioperiod.



← GENERIC FISH

*-LONGNOSE DACE



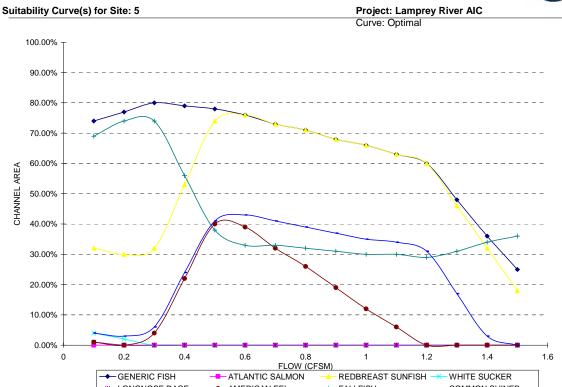


Figure 80: Effective Habitat rating curves in Reach 5 during the Rearing and Growth bioperiod.

- AMERICAN EEL

REDBREAST SUNFISH

FALLFISH

WHITE SUCKER





Suitability Curve(s) for Site: 6

Project: Lamprey River AIC
Curve: Optimal

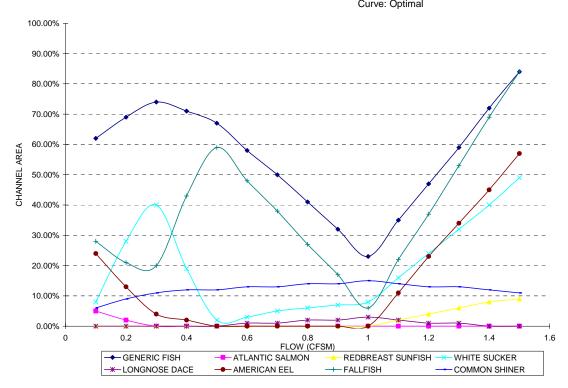


Figure 81: Effective Habitat rating curves in Reach 6 during the Rearing and Growth bioperiod.



0.00%

0.2

◆ GENERIC FISH * LONGNOSE DACE

0.4



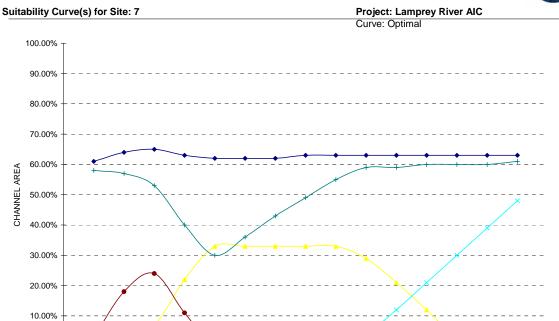


Figure 82: Effective Habitat rating curves in Reach 7 during the Rearing and Growth bioperiod.

- AMERICAN EEL

0.6 0.8

FLOW (CFSM)

-ATLANTIC SALMON

-AMERICANT

1.2

REDBREAST SUNFISH

FALLFISH

1.4

WHITE SUCKER

COMMON SHINER

1.6





Suitability Curve(s) for Site: 8

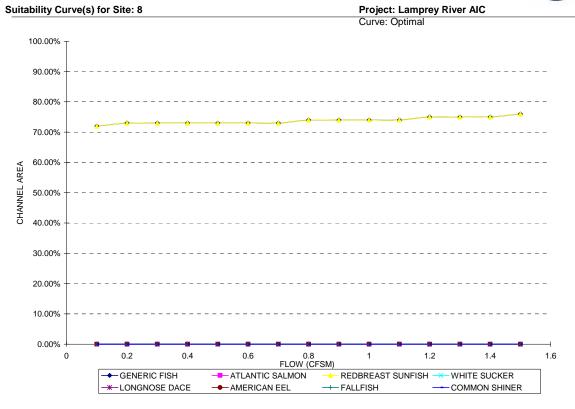


Figure 83: Effective Habitat rating curves in Reach 8 during the Rearing and Growth bioperiod.

10.
Current Conditions
Rearing and Growth bioperiod Macroinvertebrates Suitability

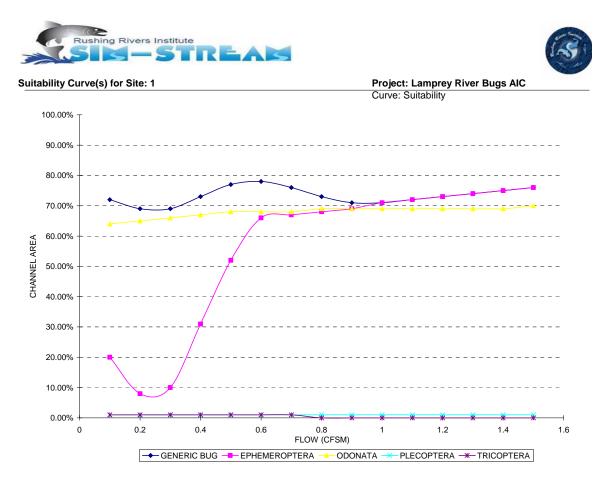


Figure 84: Suitability rating curves in Reach 1 during the Macroinvertebrates' Rearing and Growth bioperiod.





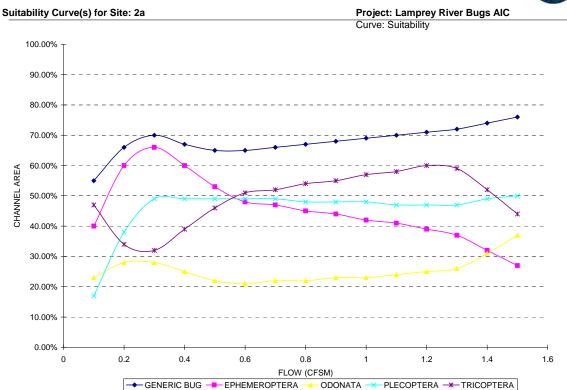


Figure 85: Suitability rating curves in Reach 2a during the Macroinvertebrates' Rearing and Growth bioperiod.



→ GENERIC BUG -



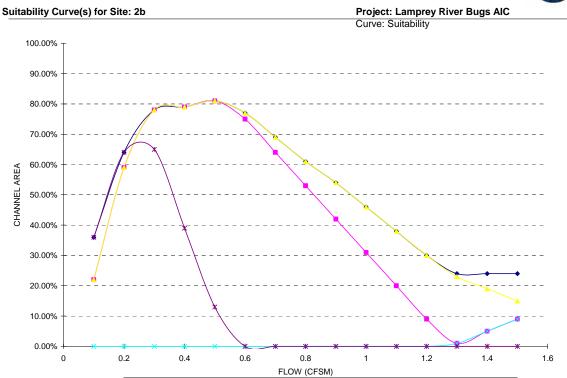


Figure 86: Suitability rating curves in Reach 2b during the Macroinvertebrates' Rearing and Growth bioperiod.

ODONATA

PLECOPTERA -*-TRICOPTERA

EPHEMEROPTERA



→ GENERIC BUG →



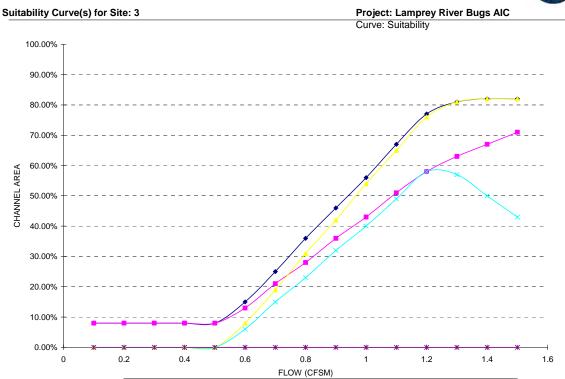


Figure 87: Suitability rating curves in Reach 3 during the Macroinvertebrates' Rearing and Growth bioperiod.

ODONATA

PLECOPTERA -*-TRICOPTERA

EPHEMEROPTERA





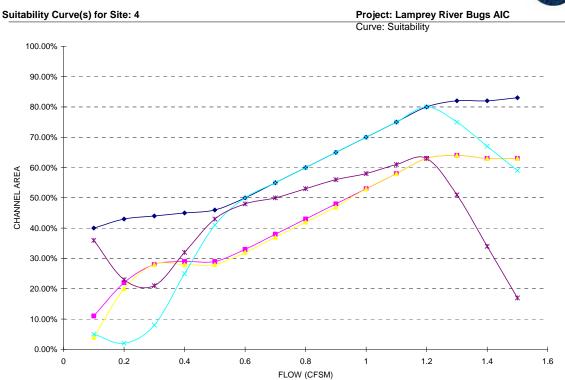


Figure 88: Suitability rating curves in Reach 4 during the Macroinvertebrates' Rearing and Growth bioperiod.

ODONATA

PLECOPTERA —— TRICOPTERA

→ GENERIC BUG - EPHEMEROPTERA





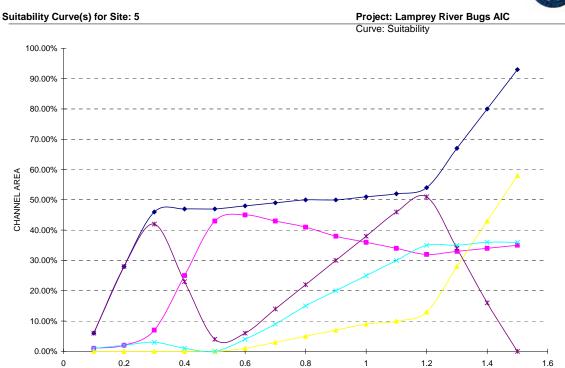


Figure 89: Suitability rating curves in Reach 5 during the Macroinvertebrates' Rearing and Growth bioperiod.

→ GENERIC BUG - EPHEMEROPTERA

FLOW (CFSM)

ODONATA

PLECOPTERA -*-TRICOPTERA



20.00%

10.00%

0.00% +

0.2

0.4

→ GENERIC BUG



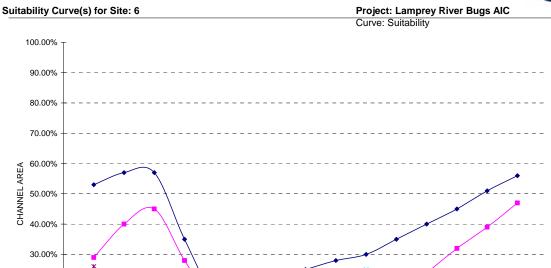


Figure 90: Suitability rating curves in Reach 6 during the Macroinvertebrates' Rearing and Growth bioperiod.

8.0

FLOW (CFSM)

ODONATA

1.2

PLECOPTERA -* TRICOPTERA

1.4

1.6

0.6

EPHEMEROPTERA



→ GENERIC BUG



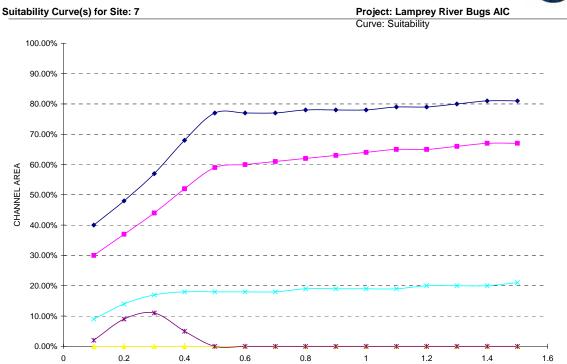


Figure 91: Suitability rating curves in Reach 7 during the Macroinvertebrates' Rearing and Growth bioperiod.

EPHEMEROPTERA

FLOW (CFSM)

ODONATA

PLECOPTERA -*-TRICOPTERA







Project: Lamprey River Bugs AIC Curve: Suitability

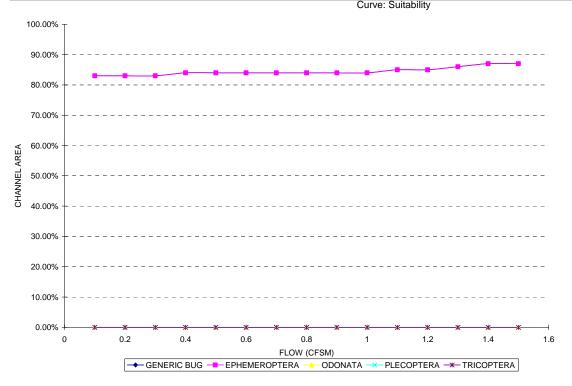


Figure 92: Suitability rating curves in Reach 8 during the Macroinvertebrates' Rearing and Growth bioperiod.

Round 2 1. Lamprey River Current Conditions

Resident Species Spawning Suitability





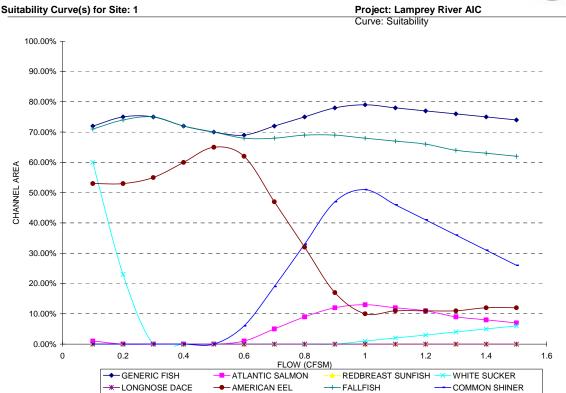


Figure 93: Suitability rating curves for fish in Reach 1 during the Resident Species Spawning bioperiod.



← GENERIC FISH

* LONGNOSE DACE



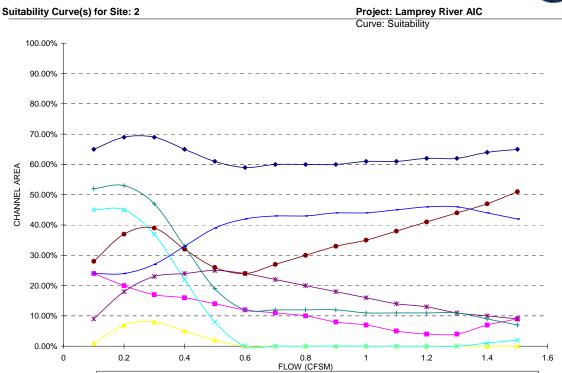


Figure 94: Suitability rating curves for fish in Reach 2 during the Resident Species Spawning bioperiod.

ATLANTIC SALMON

- AMERICAN EEL

REDBREAST SUNFISH

FALLFISH

WHITE SUCKER





Suitability Curve(s) for Site: 3 Project: Lamprey River AIC Curve: Suitability

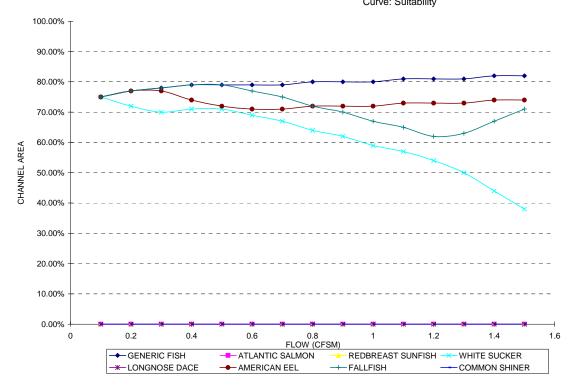


Figure 95: Suitability rating curves for fish in Reach 3 during the Resident Species Spawning bioperiod.





Suitability Curve(s) for Site: 4 Project: Lamprey River AIC Curve: Suitability

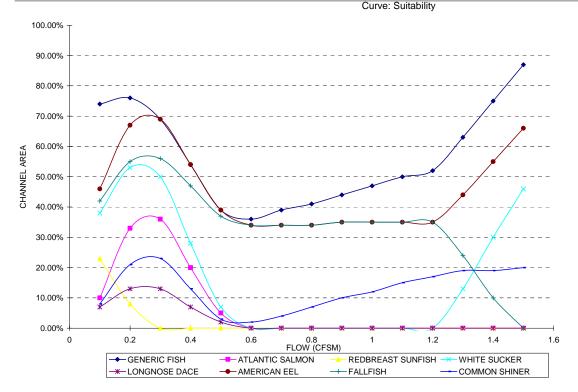


Figure 96: Suitability rating curves for fish in Reach 4 during the Resident Species Spawning bioperiod.





Suitability Curve(s) for Site: 5 Project: Lamprey River AIC Curve: Suitability

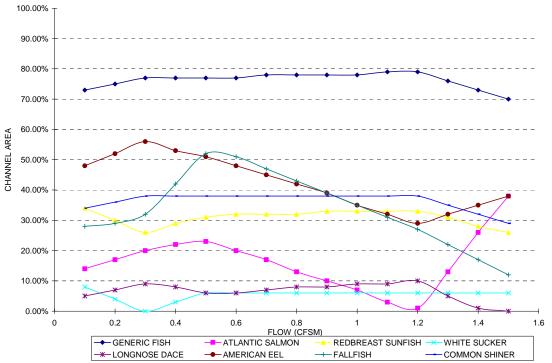


Figure 97: Suitability rating curves for fish in Reach 5 during the Resident Species Spawning bioperiod.







Project: Lamprey River AIC
Curve: Suitability

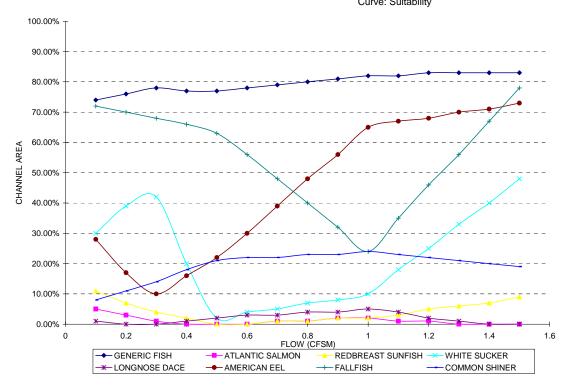


Figure 98: Suitability rating curves for fish in Reach 6 during the Resident Species Spawning bioperiod.



◆ GENERIC FISH

* LONGNOSE DACE



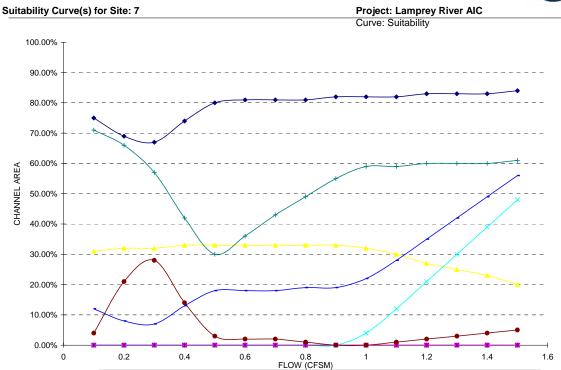


Figure 99: Suitability rating curves for fish in Reach 7 during the Resident Species Spawning bioperiod.

ATLANTIC SALMON

-AMERICAN EEL

REDBREAST SUNFISH

FALLFISH

WHITE SUCKER



← GENERIC FISH

* LONGNOSE DACE



Project: Lamprey River AIC Curve: Suitability Suitability Curve(s) for Site: 8 100.00% 90.00% 80.00% 70.00% 60.00% CHANNEL AREA 50.00% 40.00% 30.00% 20.00% 10.00% 0.00% 0.2 0.4 1.2 1.6

Figure 100: Suitability rating curves for fish in Reach 8 during the Resident Species Spawning bioperiod.

- AMERICAN EEL

REDBREAST SUNFISH

FALLFISH

WHITE SUCKER

2. Current Conditions Rearing and Growth bioperiod Effective Habitat

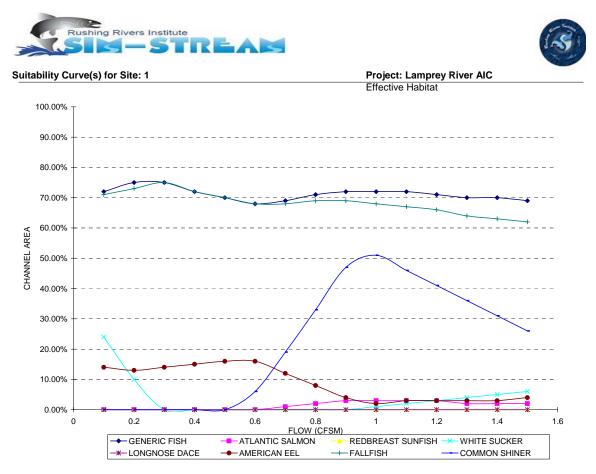


Figure 101: Effective Habitat rating curves for fish in Reach 1 during the Resident Species Spawning bioperiod.





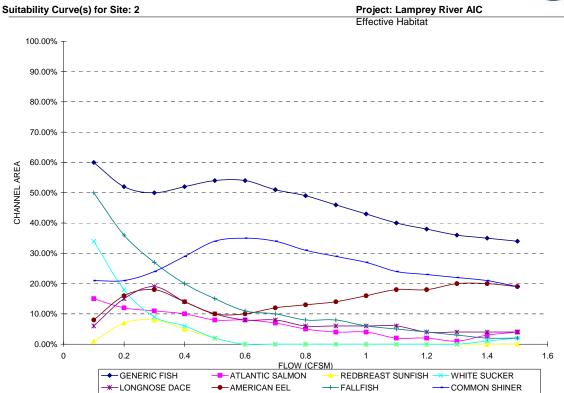


Figure 102: Effective Habitat rating curves for fish in Reach 2 during the Resident Species Spawning bioperiod.



*-LONGNOSE DACE



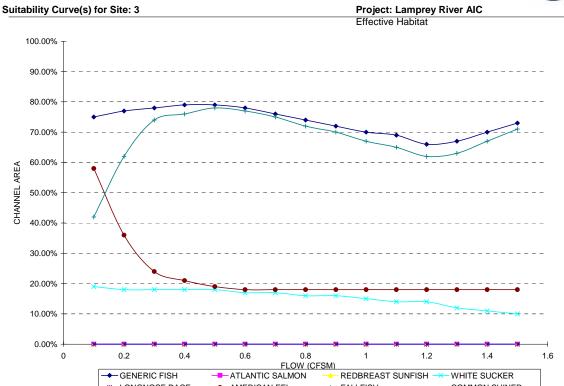


Figure 103: Effective Habitat rating curves for fish in Reach 3 during the Resident Species Spawning bioperiod.

-AMERICAN EEL

FALLFISH



* LONGNOSE DACE



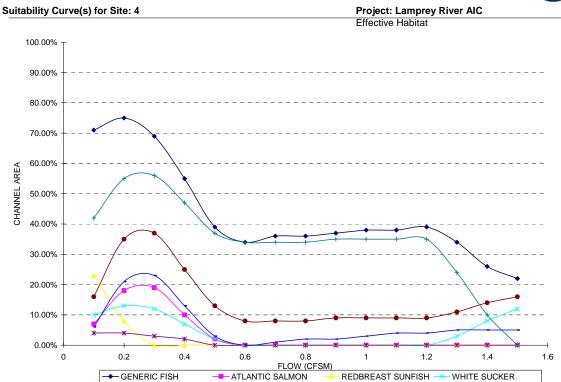


Figure 104: Effective Habitat rating curves for fish in Reach 4 during the Resident Species Spawning bioperiod.

ATLANTIC SALMON

FALLFISH

COMMON SHINER

- AMERICAN EEL



* LONGNOSE DACE



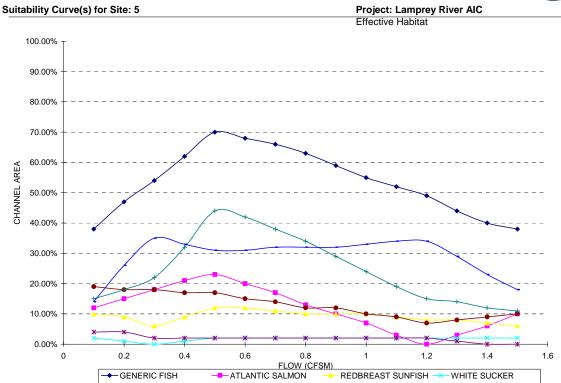


Figure 105: Effective Habitat rating curves for fish in Reach 5 during the Resident Species Spawning bioperiod.

-AMERICAN EEL

FALLFISH



← GENERIC FISH

*-LONGNOSE DACE



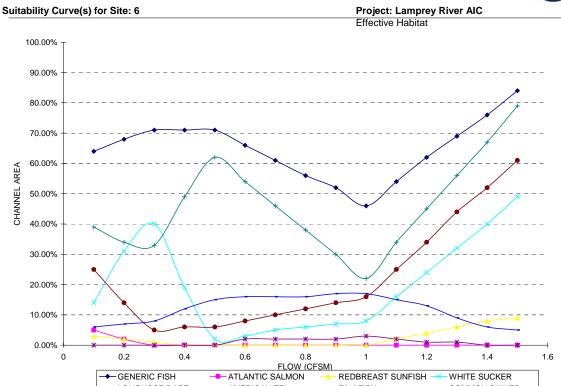


Figure 106: Effective Habitat rating curves for fish in Reach 6 during the Resident Species Spawning bioperiod.

- AMERICAN EEL

REDBREAST SUNFISH

FALLFISH

WHITE SUCKER





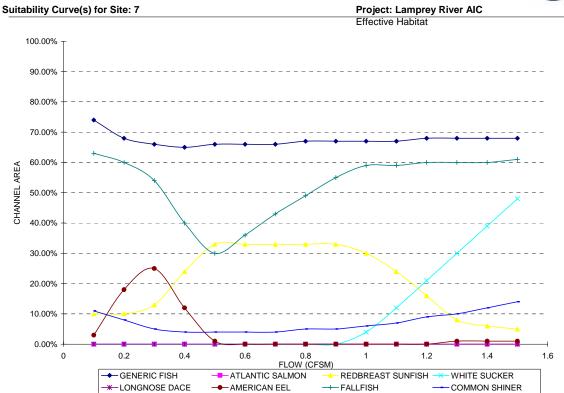


Figure 107: Effective Habitat rating curves for fish in Reach 7 during the Resident Species Spawning bioperiod.



-LONGNOSE DACE



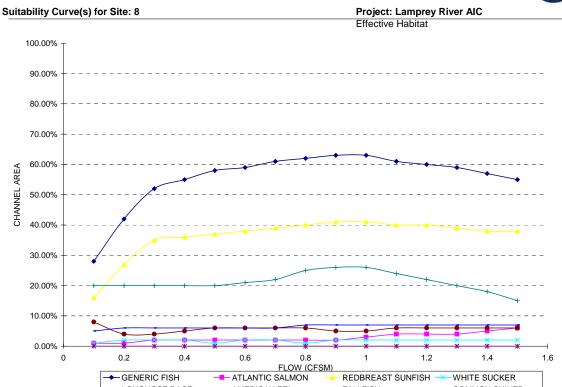


Figure 108: Effective Habitat rating curves for fish in Reach 8 during the Resident Species Spawning bioperiod.

FALLFISH

COMMON SHINER

- AMERICAN EEL

3.Current ConditionsRearing and Growth bioperiod Optimal Habitat

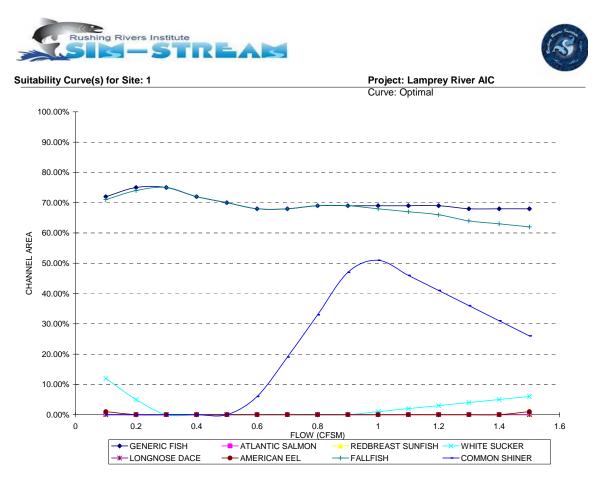


Figure 109: Optimal rating curves for fish in Reach 1 during the Rearing and Growth bioperiod.



GENERIC FISH

*-LONGNOSE DACE



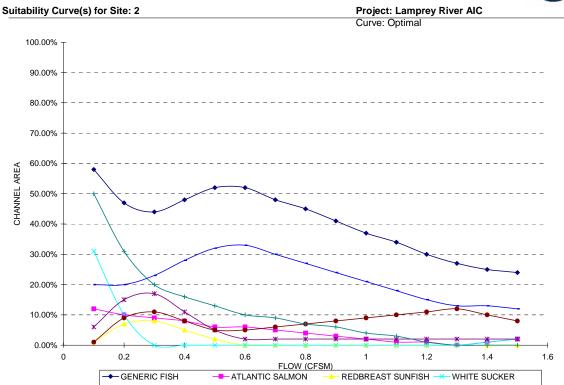


Figure 110: Optimal rating curves for fish in Reach 2 during the Rearing and Growth bioperiod.

-AMERICAN EEL

REDBREAST SUNFISH

FALLFISH

WHITE SUCKER

COMMON SHINER





Project: Lamprey River AIC Curve: Optimal Suitability Curve(s) for Site: 3 100.00% 90.00% 80.00%

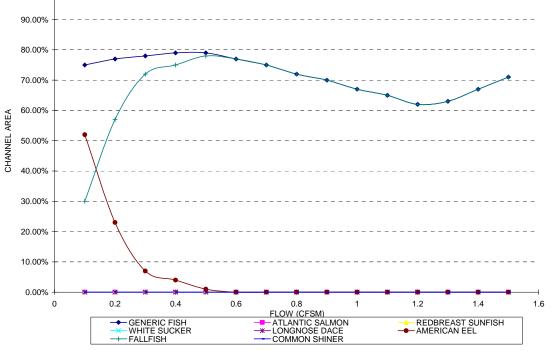


Figure 111: Optimal rating curves for fish in Reach 3 during the Rearing and Growth bioperiod.



30.00%

20.00%

10.00%

0.00%

0.2

◆ GENERIC FISH * LONGNOSE DACE

0.4



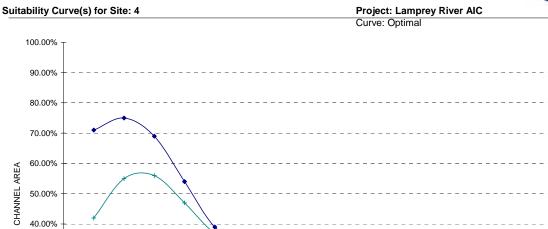


Figure 112: Optimal rating curves for fish in Reach 4 during the Rearing and Growth bioperiod.

ATLANTIC SALMON

-AMERICAN EEL

0.8 FLOW (CFSM) 1.2

REDBREAST SUNFISH

FALLFISH

1.4

WHITE SUCKER

COMMON SHINER

1.6

0.6





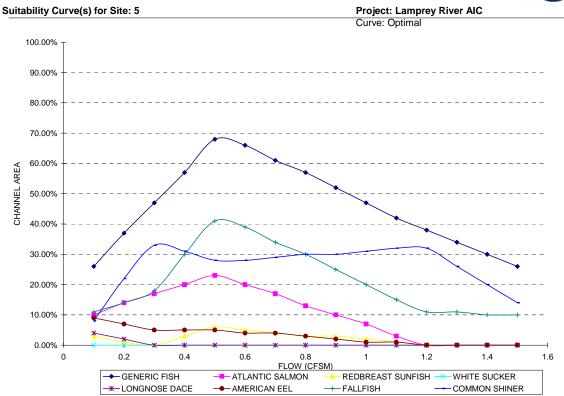


Figure 113: Optimal rating curves for fish in Reach 5 during the Rearing and Growth bioperiod.

-AMERICAN EEL

REDBREAST SUNFISH

FALLFISH

WHITE SUCKER

COMMON SHINER





Suitability Curve(s) for Site: 6

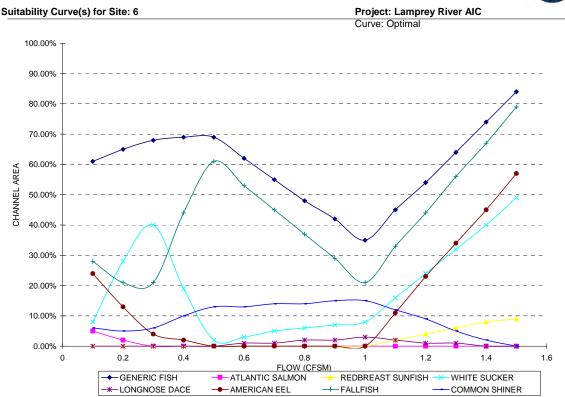


Figure 114: Optimal rating curves for fish in Reach 6 during the Rearing and Growth bioperiod.



◆ GENERIC FISH * LONGNOSE DACE



Project: Lamprey River AIC Curve: Optimal Suitability Curve(s) for Site: 7 100.00% 90.00% 80.00% 70.00% 60.00% CHANNEL AREA 50.00% 40.00% 30.00% 20.00% 10.00% 0.00% 0.4 0.6 0.2 0.8 FLOW (CFSM) 1.2 1.4 1.6

Figure 115: Optimal rating curves for fish in Reach 7 during the Rearing and Growth bioperiod.

ATLANTIC SALMON

- AMERICAN EEL

REDBREAST SUNFISH

FALLFISH

WHITE SUCKER

COMMON SHINER





Suitability Curve(s) for Site: 8



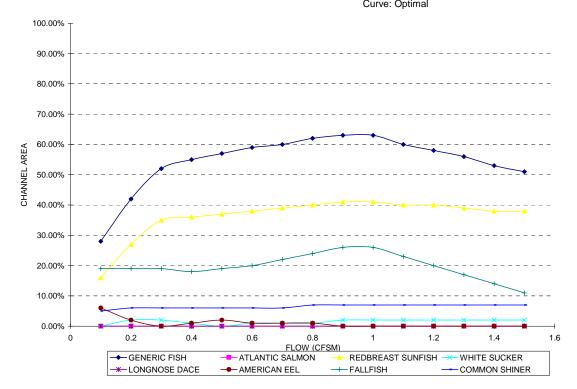


Figure 116: Optimal rating curves for fish in Reach 8 during the Rearing and Growth bioperiod.

4. Current Conditions Resident Species Spawning Suitability

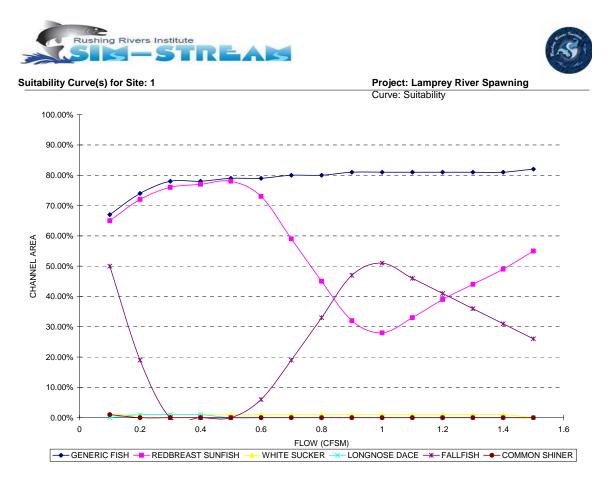


Figure 117: Suitability rating curves for fish in Reach 1 during the Resident Species Spawning bioperiod.





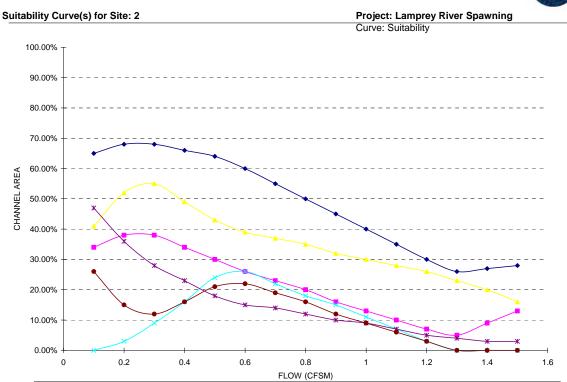


Figure 118: Suitability rating curves for fish in Reach 2 during the Resident Species Spawning bioperiod.

WHITE SUCKER





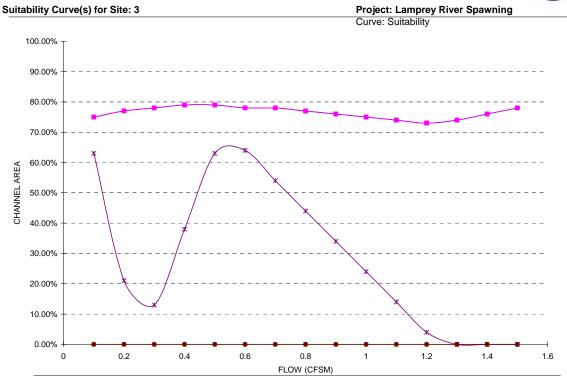


Figure 119: Suitability rating curves for fish in Reach 3 during the Resident Species Spawning bioperiod.

WHITE SUCKER



0.00%

0.2

→ GENERIC FISH → REDBREAST SUNFISH

0.4



1.6

LONGNOSE DACE -* FALLFISH -- COMMON SHINER

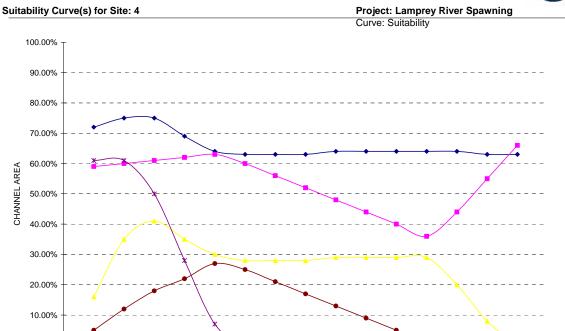


Figure 120: Suitability rating curves for fish in Reach 4 during the Resident Species Spawning bioperiod.

WHITE SUCKER

0.8

FLOW (CFSM)

0.6





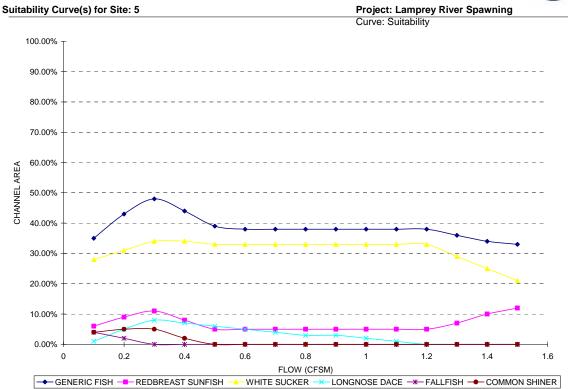


Figure 121: Suitability rating curves for fish in Reach 5 during the Resident Species Spawning bioperiod.





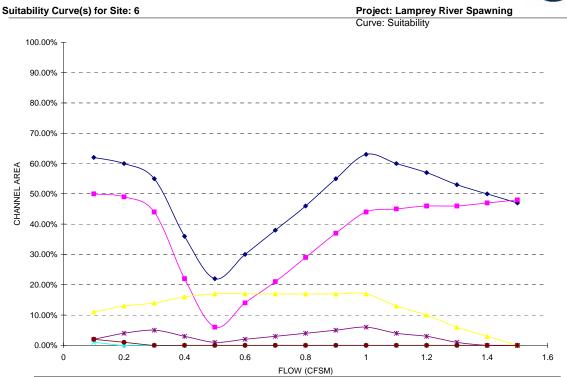


Figure 122: Suitability rating curves for fish in Reach 6 during the Resident Species Spawning bioperiod.

WHITE SUCKER





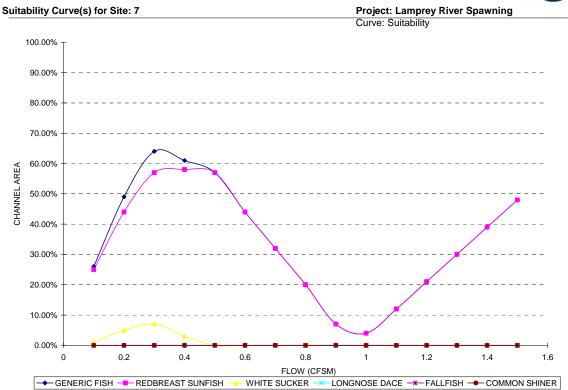


Figure 123: Suitability rating curves for fish in Reach 7 during the Resident Species Spawning bioperiod.





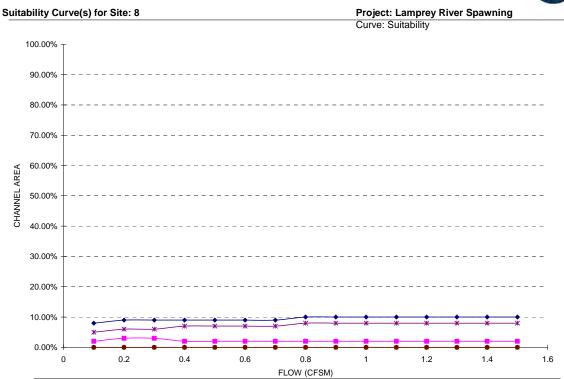


Figure 124: Suitability rating curves for fish in Reach 8 during the Resident Species Spawning bioperiod.

WHITE SUCKER

5. Current Conditions Resident Species Spawning Effective Habitat

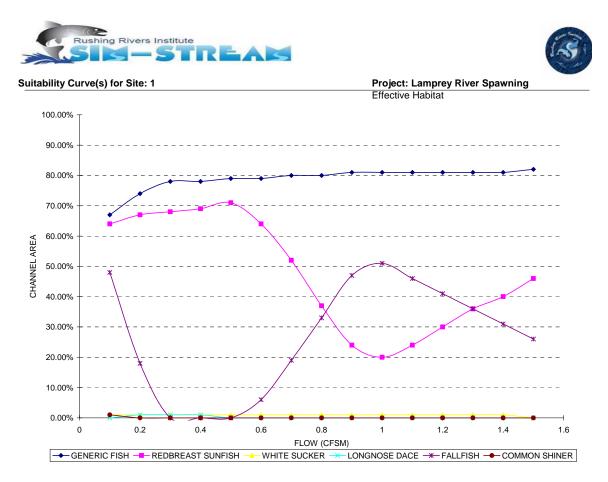


Figure 125: Effective Habitat rating curves for fish in Reach 1 during the Resident Species Spawning bioperiod.





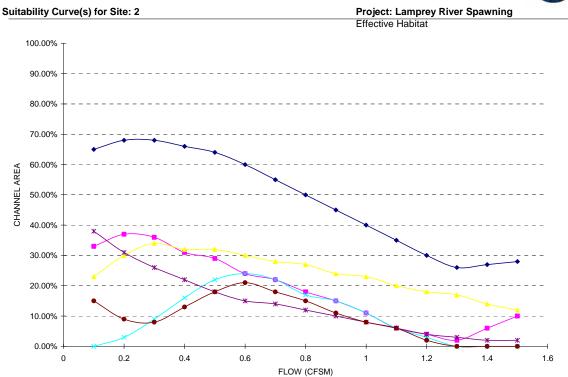


Figure 126: Effective Habitat rating curves for fish in Reach 2 during the Resident Species Spawning bioperiod.

WHITE SUCKER





LONGNOSE DACE - FALLFISH - COMMON SHINER

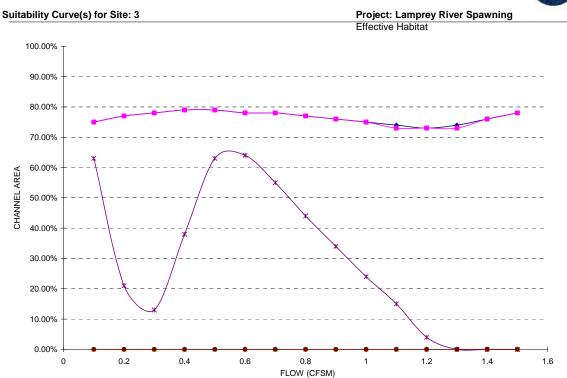
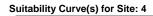


Figure 127: Effective Habitat rating curves for fish in Reach 3 during the Resident Species Spawning bioperiod.









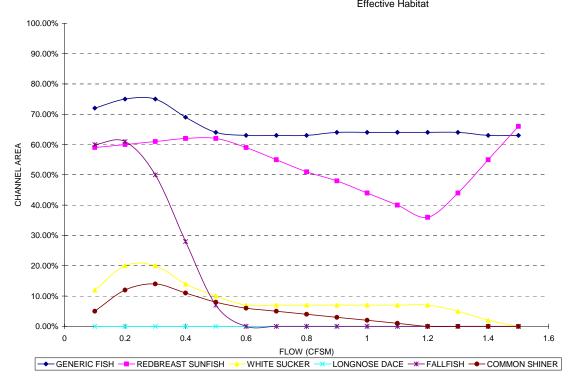


Figure 128: Effective Habitat rating curves for fish in Reach 4 during the Resident Species Spawning bioperiod.





LONGNOSE DACE -* FALLFISH -- COMMON SHINER

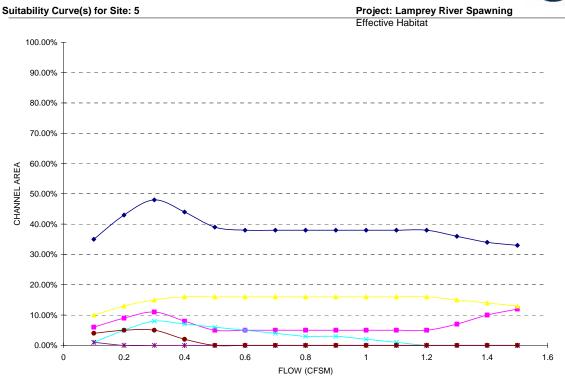


Figure 129: Effective Habitat rating curves for fish in Reach 5 during the Resident Species Spawning bioperiod.





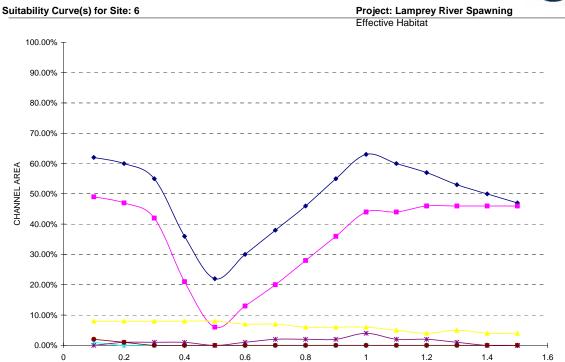


Figure 130: Effective Habitat rating curves for fish in Reach 6 during the Resident Species Spawning bioperiod.

WHITE SUCKER

FLOW (CFSM)





LONGNOSE DACE -* FALLFISH -- COMMON SHINER

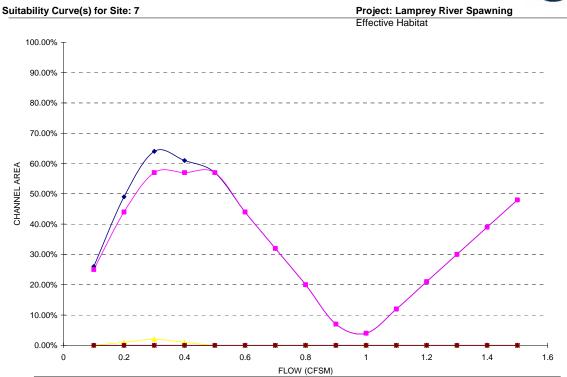


Figure 131: Effective Habitat rating curves for fish in Reach 7 during the Resident Species Spawning bioperiod.





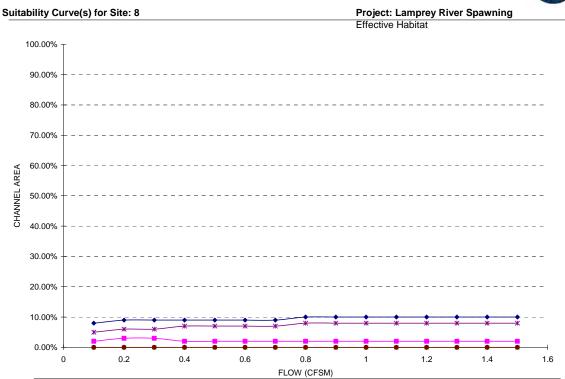


Figure 132: Effective Habitat rating curves for fish in Reach 8 during the Resident Species Spawning bioperiod.

WHITE SUCKER

6. Current Conditions Resident Species Spawning Optimal Habitat

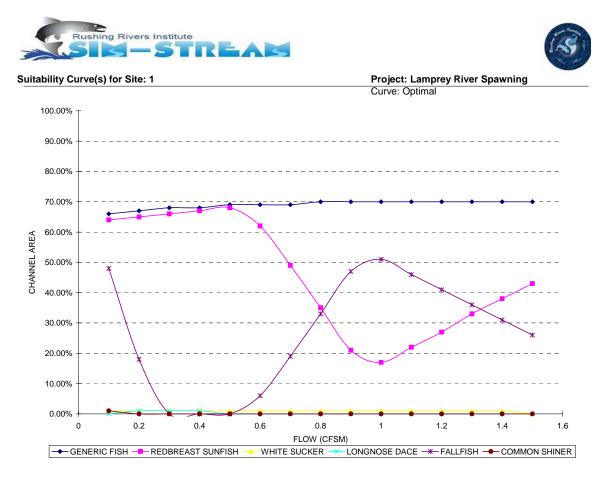


Figure 133: Optimal rating curves for fish in Reach 1 during the Resident Species Spawning bioperiod.





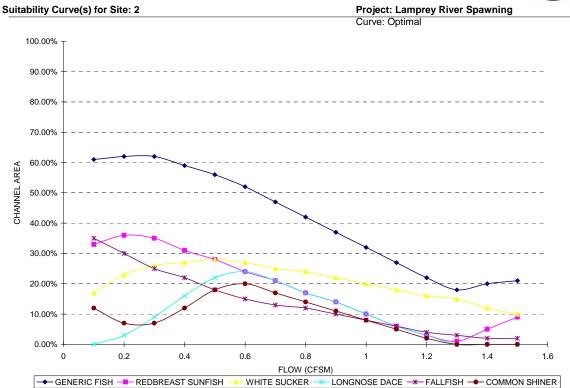


Figure 134: Optimal rating curves for fish in Reach 2 during the Resident Species Spawning bioperiod.

WHITE SUCKER





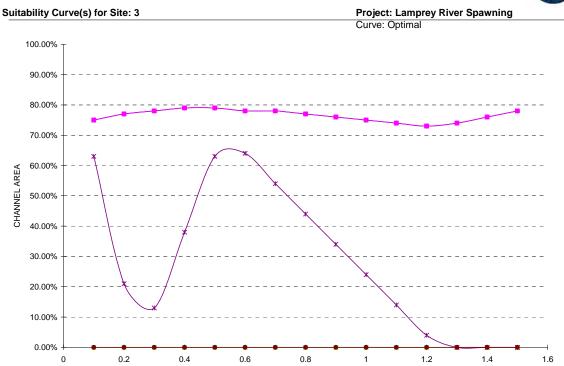


Figure 135: Optimal rating curves for fish in Reach 3 during the Resident Species Spawning bioperiod.

WHITE SUCKER

FLOW (CFSM)





LONGNOSE DACE -*- FALLFISH --- COMMON SHINER

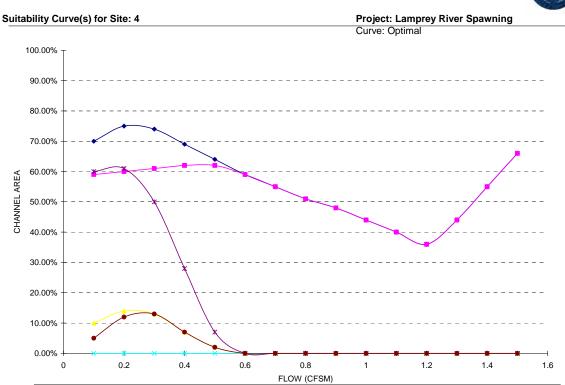
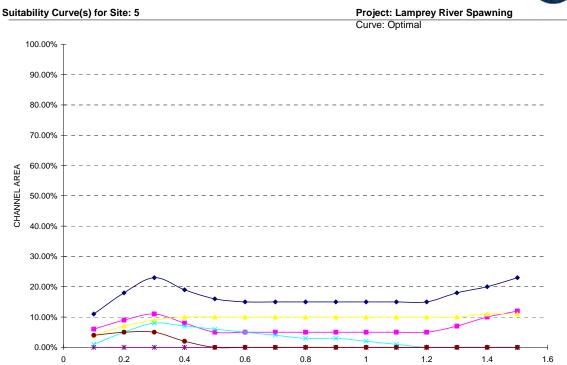


Figure 136: Optimal rating curves for fish in Reach 4 during the Resident Species Spawning bioperiod.







FLOW (CFSM)

LONGNOSE DACE -*- FALLFISH --- COMMON SHINER

Figure 137: Optimal rating curves for fish in Reach 5 during the Resident Species Spawning bioperiod.





LONGNOSE DACE -*- FALLFISH --- COMMON SHINER

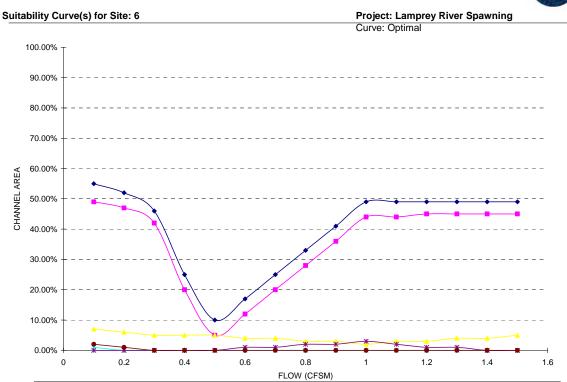


Figure 138: Optimal rating curves for fish in Reach 6 during the Resident Species Spawning bioperiod.





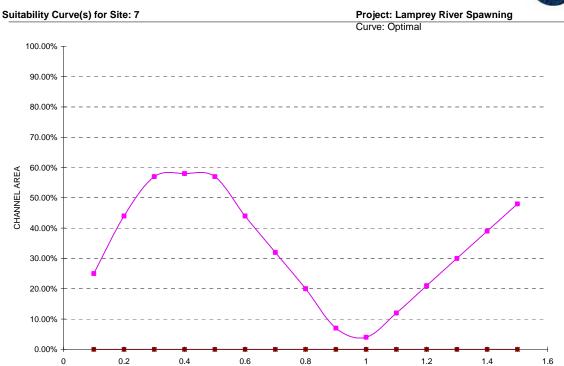


Figure 139: Optimal rating curves for fish in Reach 7 during the Resident Species Spawning bioperiod.

WHITE SUCKER

FLOW(CFSM)





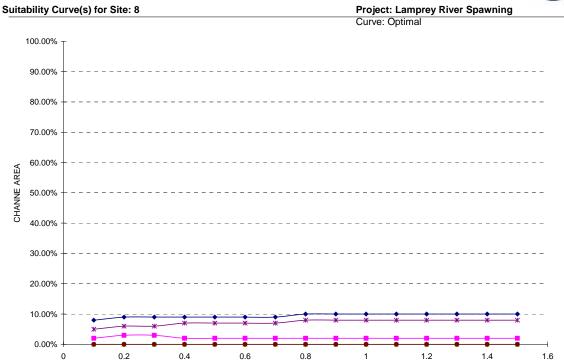


Figure 140: Optimal rating curves for fish in Reach 8 during the Resident Species Spawning bioperiod.

WHITE SUCKER

FLOW (CFSM)

7. Current Conditions Anadromous Species spawning Suitability

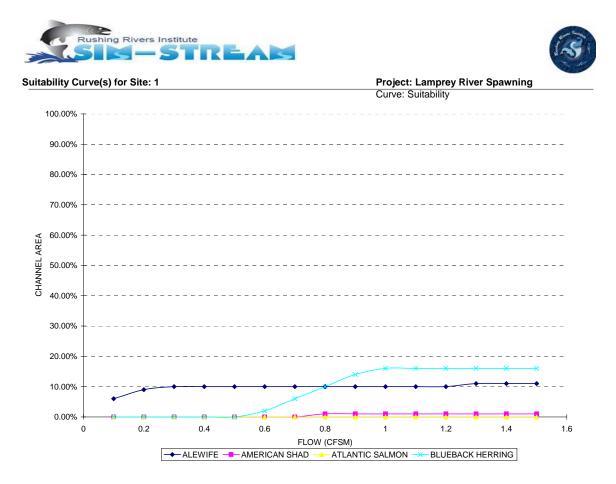


Figure 141: Suitability rating curves for fish in Reach 1 during the Anadromous Species Spawning bioperiod.





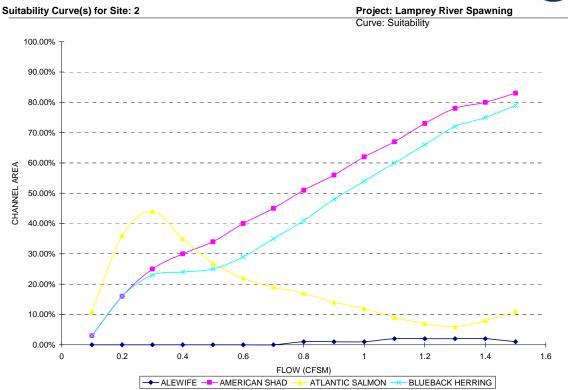


Figure 142: Suitability rating curves for fish in Reach 2 during the Anadromous Species Spawning bioperiod.





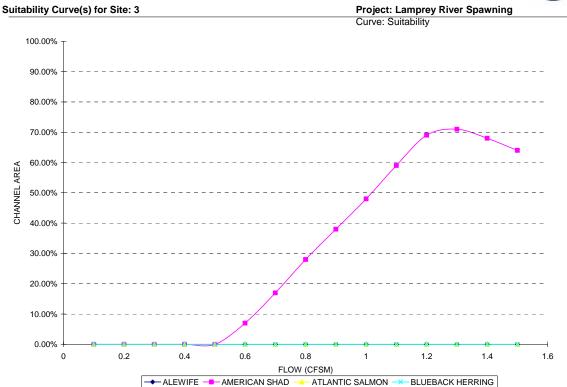


Figure 143: Suitability rating curves for fish in Reach 3 during the Anadromous Species Spawning bioperiod.

ATLANTIC SALMON

BLUEBACK HERRING





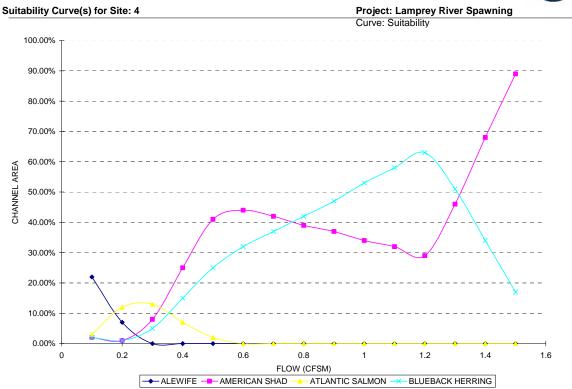


Figure 144: Suitability rating curves for fish in Reach 4 during the Anadromous Species Spawning bioperiod.





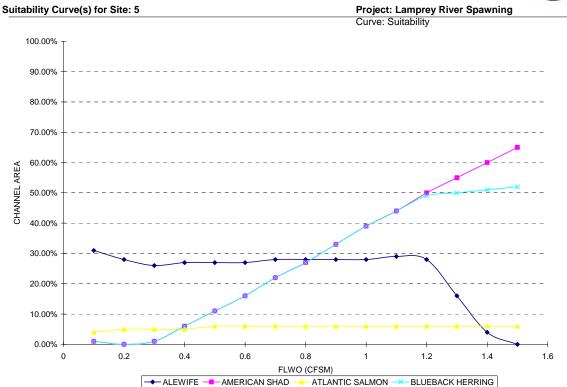


Figure 145: Suitability rating curves for fish in Reach 5 during the Anadromous Species Spawning bioperiod.





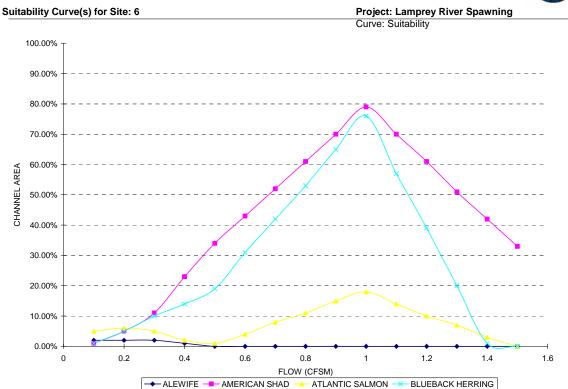


Figure 146: Suitability rating curves for fish in Reach 6 during the Anadromous Species Spawning bioperiod.





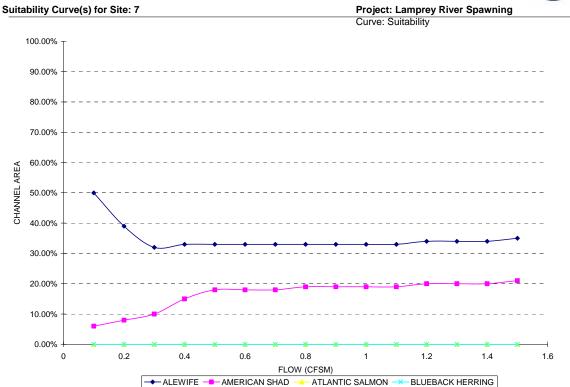


Figure 147: Suitability rating curves for fish in Reach 7 during the Anadromous Species Spawning bioperiod.





BLUEBACK HERRING

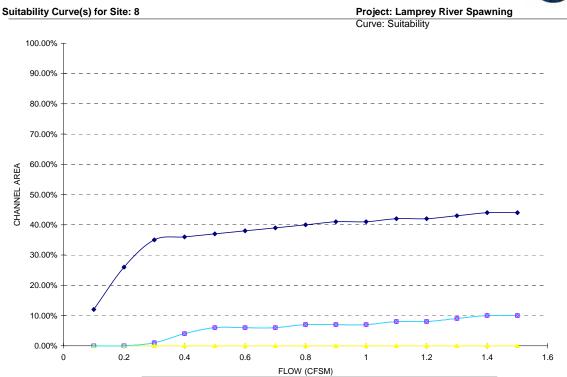


Figure 148: Suitability rating curves for fish in Reach 8 during the Anadromous Species Spawning bioperiod.

ATLANTIC SALMON

8. Current Conditions

Anadromous Species Spawning Effective Habitat





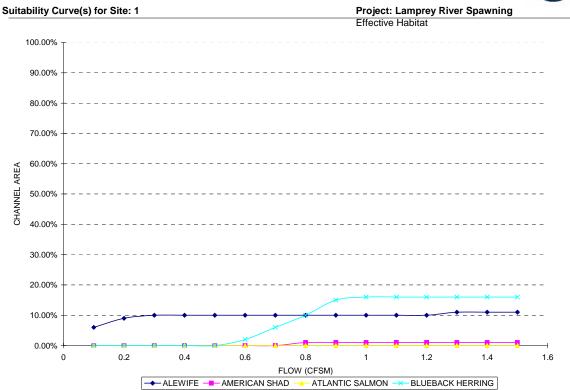


Figure 149: Effective Habitat rating curves for fish in Reach 1 during the Anadromous Species Spawning bioperiod.





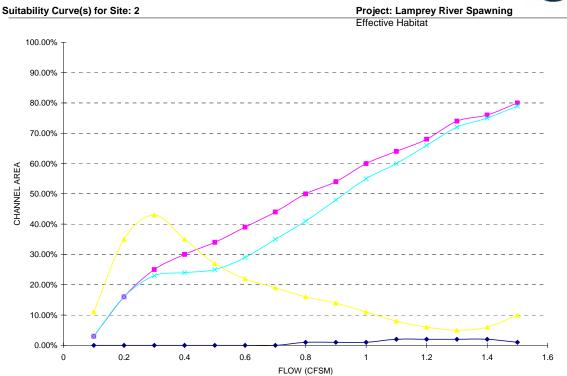


Figure 150: Effective Habitat rating curves for fish in Reach 2 during the Anadromous Species Spawning bioperiod.

BLUEBACK HERRING





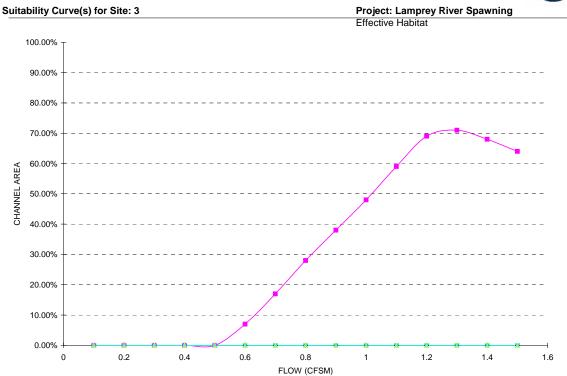


Figure 151: Effective Habitat rating curves for fish in Reach 3 during the Anadromous Species Spawning bioperiod.

BLUEBACK HERRING





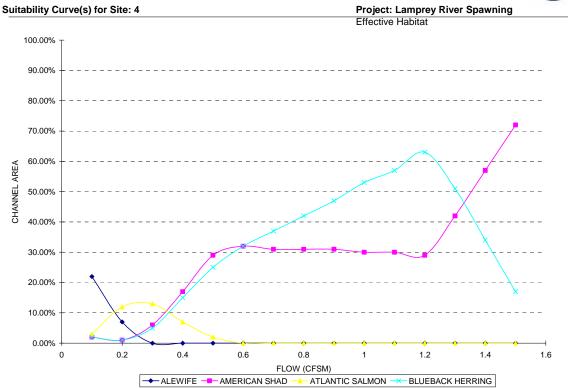


Figure 152: Effective Habitat rating curves for fish in Reach 4 during the Anadromous Species Spawning bioperiod.





BLUEBACK HERRING

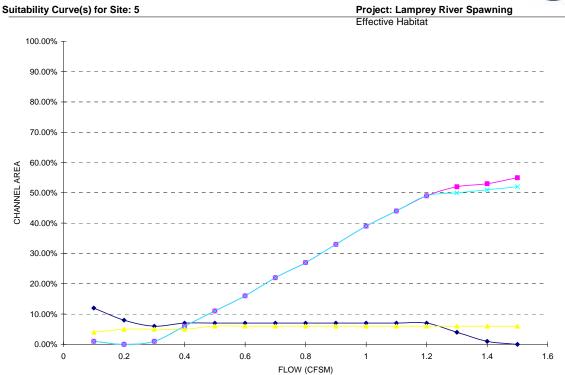


Figure 153: Effective Habitat rating curves for fish in Reach 5 during the Anadromous Species Spawning bioperiod.

ATLANTIC SALMON





BLUEBACK HERRING

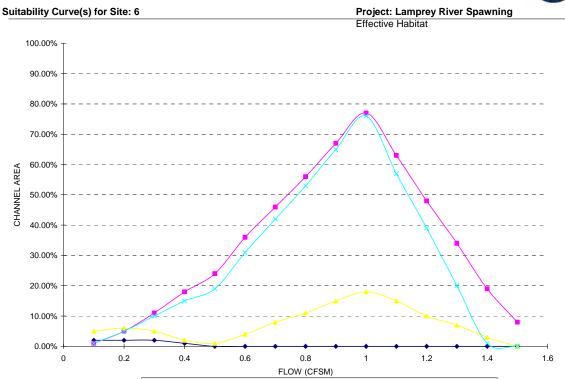


Figure 154: Effective Habitat rating curves for fish in Reach 6 during the Anadromous Species Spawning bioperiod.

ATLANTIC SALMON





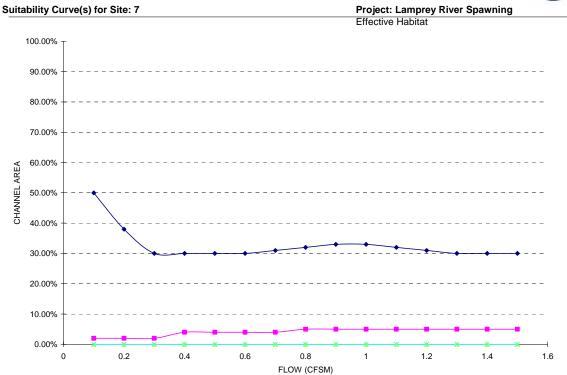


Figure 155: Effective Habitat rating curves for fish in Reach 7 during the Anadromous Species Spawning bioperiod.

BLUEBACK HERRING





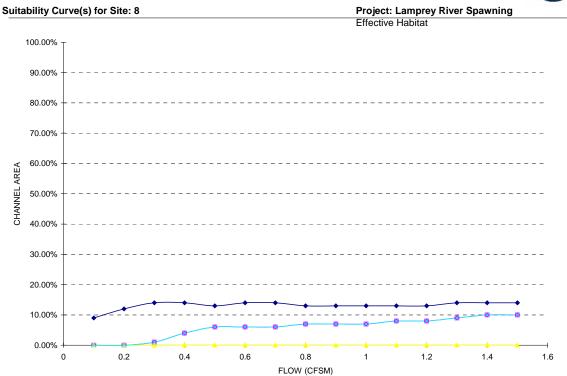


Figure 156: Effective Habitat rating curves for fish in Reach 8 during the Anadromous Species Spawning bioperiod.

BLUEBACK HERRING

AMERICAN SHAD

◆ ALEWIFE

9. Current Conditions Anadromous Species Spawning Optimal

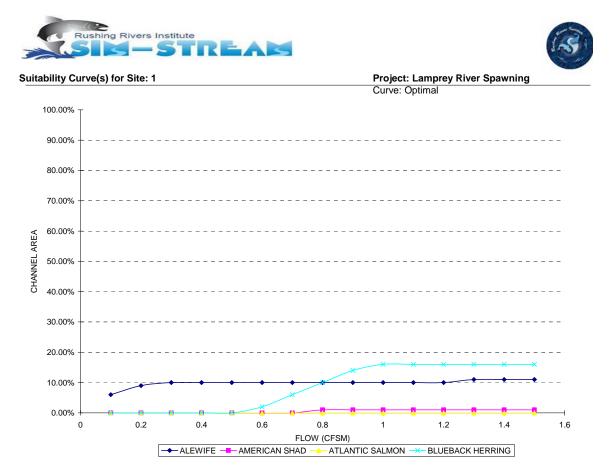


Figure 157: Optimal rating curves for fish in Reach 1 during the Anadromous Species Spawning bioperiod.





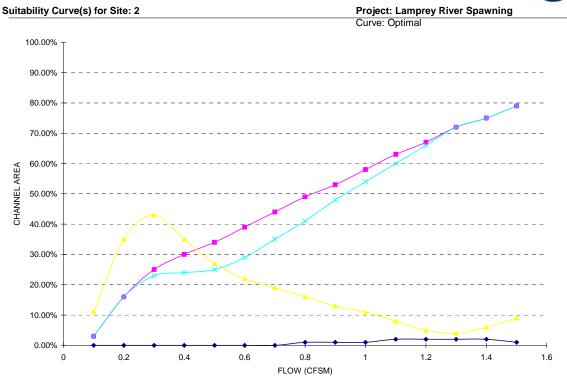


Figure 158: Optimal rating curves for fish in Reach 2 during the Anadromous Species Spawning bioperiod.

BLUEBACK HERRING

--- AMERICAN SHAD

→ ALEWIFE





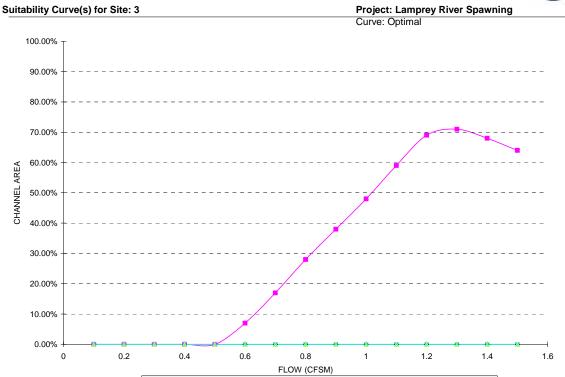


Figure 159: Optimal rating curves for fish in Reach 3 during the Anadromous Species Spawning

BLUEBACK HERRING

bioperiod.





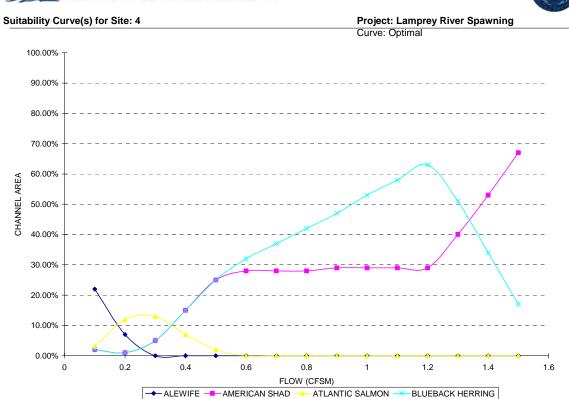


Figure 160: Optimal rating curves for fish in Reach 4 during the Anadromous Species Spawning bioperiod.





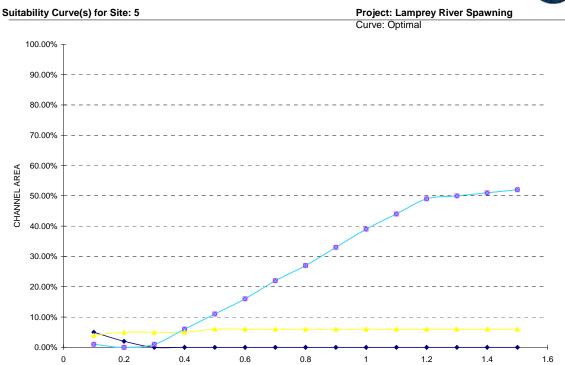


Figure 161: Optimal rating curves for fish in Reach 5 during the Anadromous Species Spawning bioperiod.

→ ALEWIFE - AMERICAN SHAD

FLOW (CFSM)S

ATLANTIC SALMON

BLUEBACK HERRING





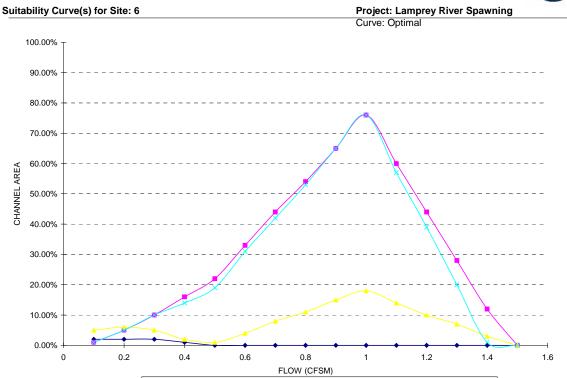


Figure 162: Optimal rating curves for fish in Reach 6 during the Anadromous Species Spawning bioperiod.

BLUEBACK HERRING





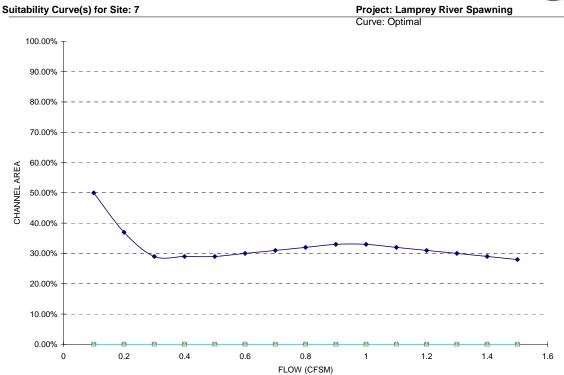


Figure 163: Optimal rating curves for fish in Reach 7 during the Anadromous Species Spawning bioperiod.

BLUEBACK HERRING





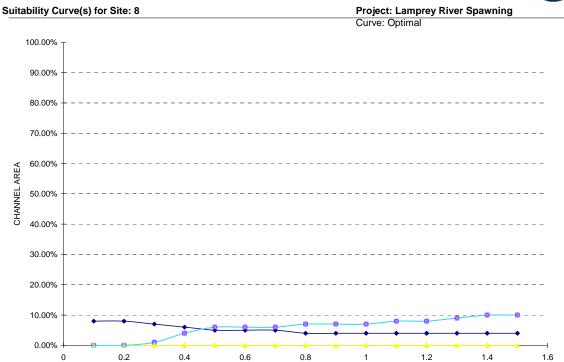


Figure 164: Optimal rating curves for fish in Reach 7 during the Anadromous Species Spawning bioperiod.

→ ALEWIFE — AMERICAN SHAD

FLOW (CFSM)

ATLANTIC SALMON

BLUEBACK HERRING

9. Current Conditions

Rearing and Growth bioperiod Macroinvertebrates Suitability

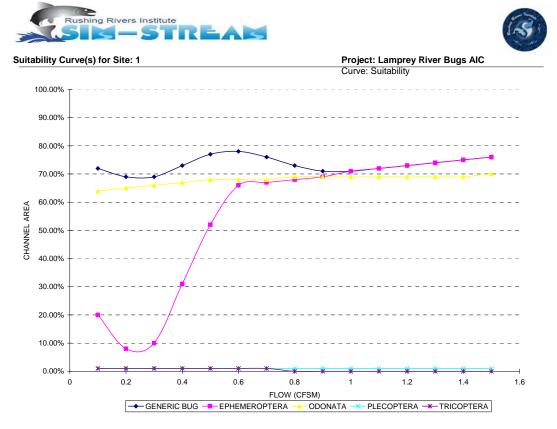


Figure 165: Suitability rating curves for Macroinvertebrates in Reach 1 during the Rearing and Growth bioperiod.







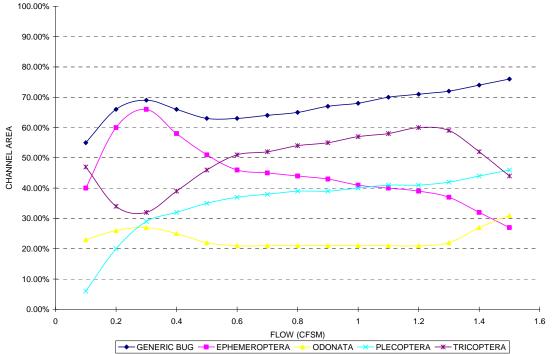


Figure 166: Suitability rating curves for Macroinvertebrates in Reach 2 during the Rearing and Growth bioperiod.





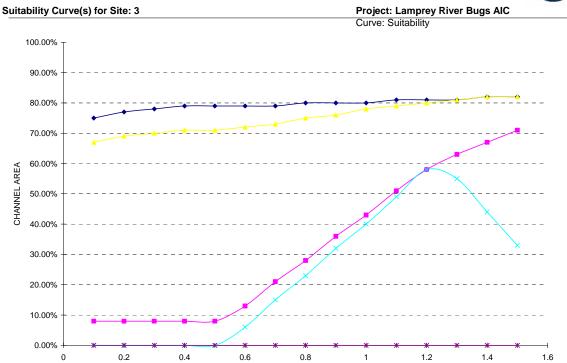


Figure 167: Suitability rating curves for Macroinvertebrates in Reach 3 during the Rearing and Growth bioperiod.

→ GENERIC BUG - EPHEMEROPTERA

FLOW (CFSM)

ODONATA

PLECOPTERA -* TRICOPTERA





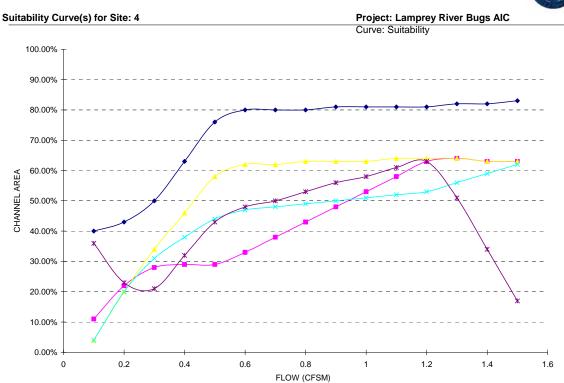


Figure 168: Suitability rating curves for Macroinvertebrates in Reach 4 during the Rearing and Growth bioperiod.

ODONATA

PLECOPTERA -* TRICOPTERA

→ GENERIC FISH - EPHEMEROPTERA





PLECOPTERA -* TRICOPTERA

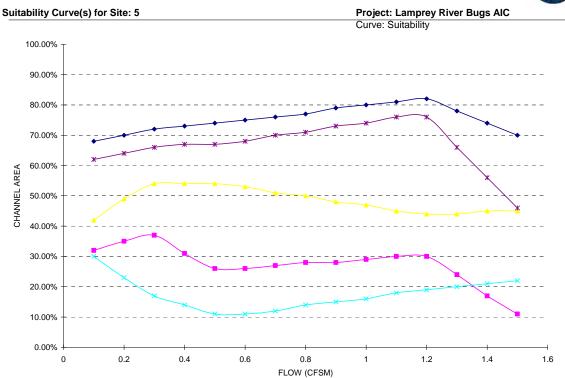


Figure 169: Suitability rating curves for Macroinvertebrates in Reach 5 during the Rearing and Growth bioperiod.

→ GENERIC BUG - EPHEMEROPTERA



→ GENERIC BUG



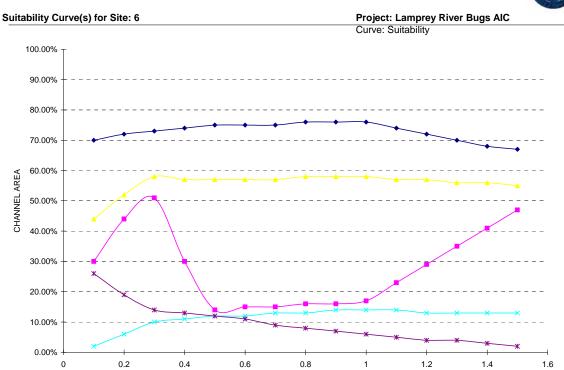


Figure 170: Suitability rating curves for Macroinvertebrates in Reach 6 during the Rearing and Growth bioperiod.

EPHEMEROPTERA

FLOW (CFSM)

PLECOPTERA -*-TRICOPTERA





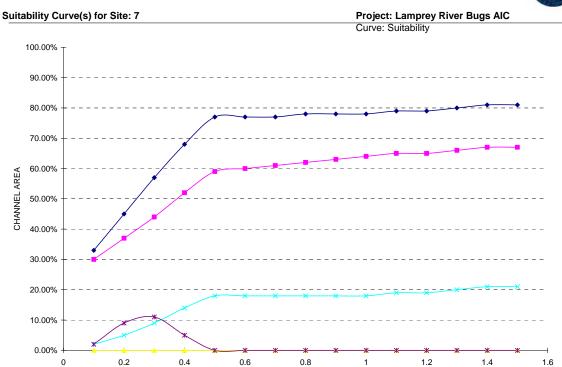


Figure 171: Suitability rating curves for Macroinvertebrates in Reach 7 during the Rearing and Growth bioperiod.

-- EPHEMEROPTERA

→ GENERIC BUG -

FLOW (CFSM)

PLECOPTERA -* TRICOPTERA





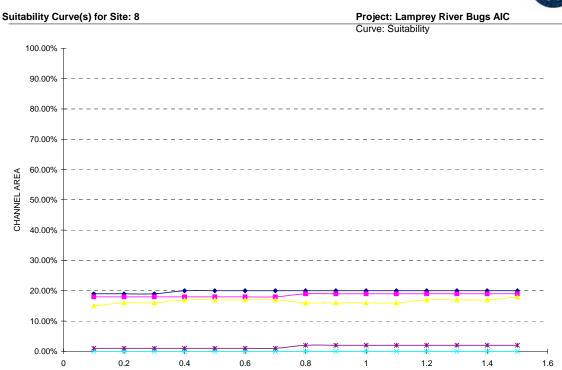


Figure 172: Suitability rating curves for Macroinvertebrates in Reach 8 during the Rearing and Growth bioperiod.

→ GENERIC BUG - EPHEMEROPTERA

FLOW (CFSM)

PLECOPTERA -*-TRICOPTERA

10. Current Conditions Rearing and Growth bioperiod Macroinvertebrates Effective Habitat

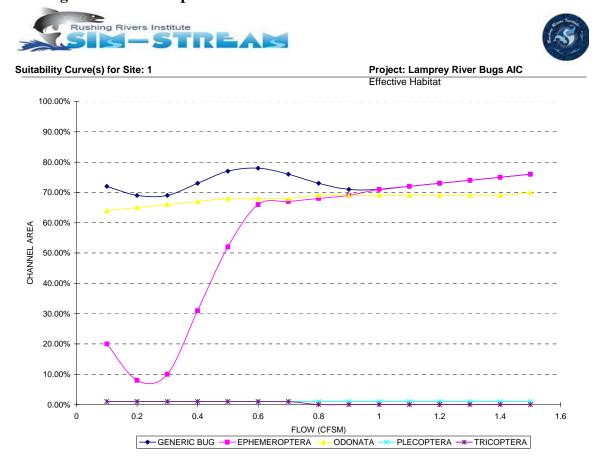


Figure 173: Effective Habitat rating curves for Macroinvertebrates in Reach 1 during the Rearing and Growth bioperiod.





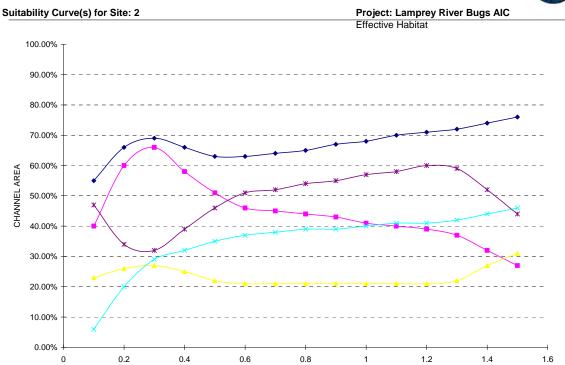


Figure 174: Effective Habitat rating curves for Macroinvertebrates in Reach 2 during the Rearing and Growth bioperiod.

→ GENERIC BUG - EPHEMEROPTERA

FLOW (CFSM)

ODONATA

PLECOPTERA -*-TRICOPTERA





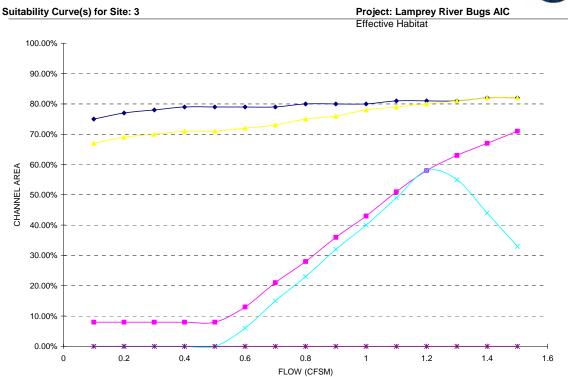


Figure 175: Effective Habitat rating curves for Macroinvertebrates in Reach 3 during the Rearing and Growth bioperiod.

ODONATA

PLECOPTERA -*-TRICOPTERA

→ GENERIC BUG - EPHEMEROPTERA





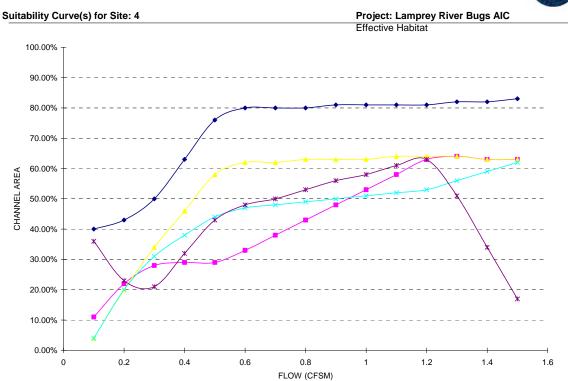


Figure 176: Effective Habitat rating curves for Macroinvertebrates in Reach 4 during the Rearing and Growth bioperiod.

ODONATA

PLECOPTERA -*-TRICOPTERA

→ GENERIC BUG - EPHEMEROPTERA





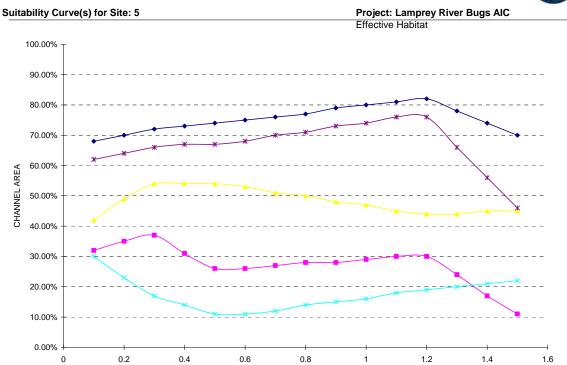


Figure 177: Effective Habitat rating curves for Macroinvertebrates in Reach 5 during the Rearing and Growth bioperiod.

→ GENERIC BUG - EPHEMEROPTERA

FLOW (CFSM)

PLECOPTERA -*-TRICOPTERA



→ GENERIC BUG



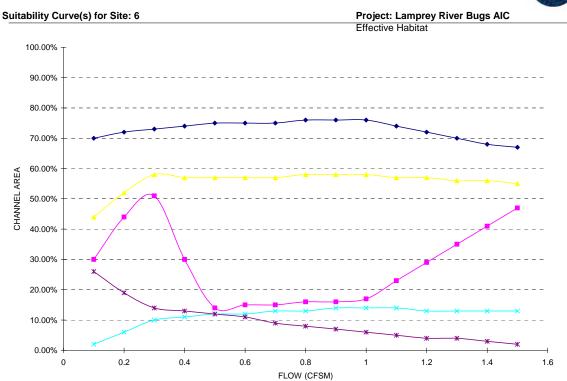


Figure 178: Effective Habitat rating curves for Macroinvertebrates in Reach 6 during the Rearing and Growth bioperiod.

PLECOPTERA -*-TRICOPTERA

EPHEMEROPTERA



→ GENERIC BUG -



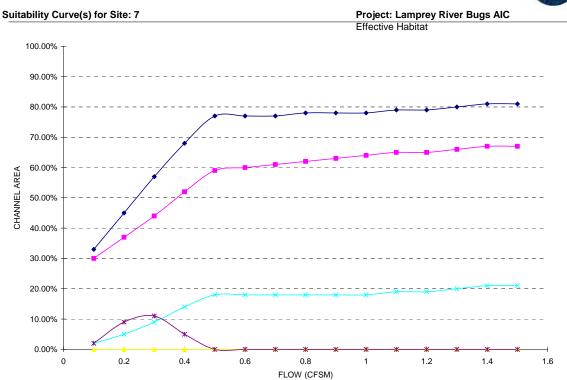


Figure 179: Effective Habitat rating curves for Macroinvertebrates in Reach 7 during the Rearing and Growth bioperiod.

PLECOPTERA -*-TRICOPTERA

- EPHEMEROPTERA





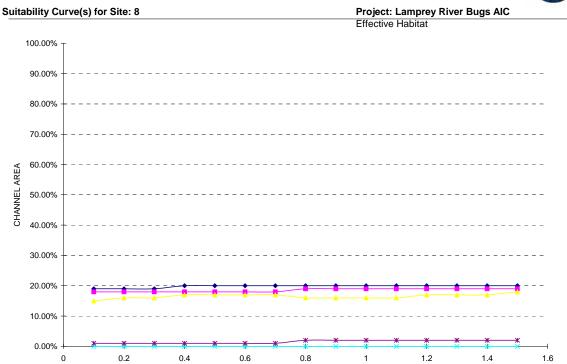


Figure 180: Effective Habitat rating curves for Macroinvertebrates in Reach 8 during the Rearing and Growth bioperiod.

→ GENERIC BUG - EPHEMEROPTERA

FLOW (CFSM)

PLECOPTERA -*-TRICOPTERA